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A

DESCRIPTIVE CATALOGUE

OF

*Canning and Freezing*

VEGETABLES



Associated Seed Growers, Inc.

New Haven, Connecticut



# *Canning and Freezing Catalog*

## Foreword

**E**ACH revision of our Descriptive Catalog embodies some additions to the vegetable list, reflecting the progress that is being made by public bodies and commercial seedsmen in developing varieties and strains of higher yield and quality, increased resistance to disease, or otherwise adapted to the needs and desires of the packing industry. To this progress we are happy to think that the Asgrow program of research and breeding has contributed materially, through the work continually carried on at our breeding stations. In the present edition we invite attention to the following Asgrow items, now listed for the first time.

Beans : Flight, Ranger, Tenderlong.

Broccoli : a series.

Sweet Corn : Calumet, Huron, Pawnee, Peoria.

Cucumber : Marketer, Model, Packer, Producer.

Peas : Laurel, Lolo, Resistant Early Perfection.

Tomato : Jefferson.

Some of these items have already proved their worth in extensive tests under commercial conditions of canning and freezing, others have been through more limited trials, but each is known to be of value for its particular purpose and is recommended accordingly.

The major part of our breeding station program is less adapted to publicity, but is even more important in effects. It is the continuous work of maintaining Asgrow parent seed stocks of standard varieties at a high level of quality and without those reversion toward rougher, wild forms to which cultivated vegetables naturally tend. The results of this unobtrusive effort are seen in the crops of our customers.

In laboratory work our experimentation has continued, and some of the more recent scientific discoveries have been put to practical application in our germination and other analyses aimed at still more accurate prediction of field performance.

Suggestions for inclusions in the next edition of this catalog will be very welcome.

**Associated Seed Growers, Inc.**

New Haven, Conn.

January 1, 1949.

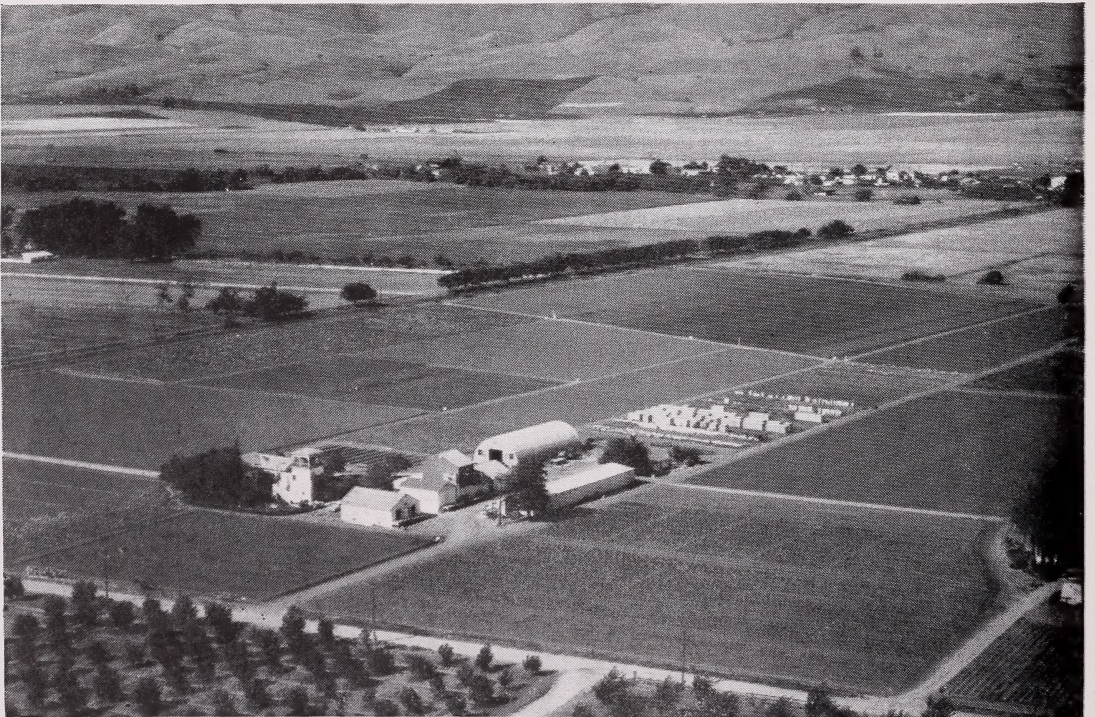
## The Asgrow Program of Research and Breeding

The food standards of today are not satisfied by Nature's products as they would normally grow, unaided by man. Some plants, indeed, such as corn, could not continue to exist without cultivation, while others would revert to coarser forms unacceptable as food.

Particular conditions of environment, including soil, climate and the devastating effects of ever-increasing insects and diseases, demand new varieties or the adaption of others. Advancement in the knowledge and technique of preserving foods calls for types especially suited to canning, freezing and dehydrating. In addition, the quality of older varieties which are in general use for whatever purpose must continually be maintained, so that they may not deteriorate from accepted standards.

Seven Asgrow breeding stations are now in operation, situated in as many different parts of the country, their locations having been determined by the needs of the species to be grown at each. The stations are charged with the following duties:

- (1) The maintenance of high quality parent Asgrow stocks to be multiplied annually in seed crops destined for distribution to our customers.
- (2) The production of new or improved types to meet special needs. Some current examples are mentioned in the foreword.
- (3) To cooperate with federal and state agricultural experiment stations.
- (4) To determine the value of new or improved strains for particular localities.
- (5) To render service to customers by investigating special problems or furnishing specific information.



*Pacific Coast Asgrow Breeding Station, Milpitas, California*

# ALL-AMERICA SELECTIONS

The All-America Selections Council, sponsored by the American Seed Trade Association, has each year since 1933 made awards to distinctively new varieties. These coveted awards are made on the results of trials conducted in twenty different sections of the country by impartial judges, to whom the entries are known only by numbers, and who allot marks for Distinctiveness, General Usefulness, Adaptability, and Uniformity.

The Asgrow record in these trials is as follows:

## GOLD MEDAL

Asgrow Stringless Green Pod Bean .....	1933
Asgrow Wonder Beet .....	1934
Scarlet Dawn Tomato .....	1935

## SILVER MEDAL

Asgrow Black Valentine Bean .....	1933
Clark's Special Cucumber .....	1933
Imperator Carrot .....	1933
Asgrow Canner Beet .....	1936
Golden Colonel Corn .....	1936
Teton Pea .....	1937
Baby Potato Lima Bean <sup>1</sup> .....	1940
Decatur Pole Bean .....	1942

## BRONZE MEDAL

Stowell's Evergreen Hybrid Sweet Corn .....	1934
Ruby King Pepper, Asgrow Strain .....	1935
Canner King Pea .....	1937
Ioana Hybrid Sweet Corn <sup>2</sup> .....	1940
Allegheny Hybrid Sweet Corn .....	1941
Medal Refugee Bean .....	1942
Marketer Cucumber .....	1943
Potomac Pole Bean .....	1943
Cubit Cucumber .....	1944
Ranger Bean .....	1946

## HONORABLE MENTION

Cardinal Tomato .....	1938
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<sup>1</sup> Cooperatively, see page 9

<sup>2</sup> Cooperatively, see page 19

## ARTICHOKE

### LARGE GREEN GLOBE

Plant thistle-like 3-5 ft. tall. Head large, round but slightly elongated, deep green; edible base of scales thick and of delicate flavor.

## ASPARAGUS

### \* MARY WASHINGTON

Developed by the late Dr. J. B. Norton, U. S. Dept. of Agriculture, for resistance to asparagus rust; and now by far the most extensively grown variety. Large green spears with tight, purple-tinted tips, of fine quality. Heavily productive and very uniform.

\* Suitable for quick freezing.

## BEANS



*Asgrow Bean-breeding Station, Twin Falls, Idaho*

Through hybridization and intensive selection we have developed many of the leading varieties of stringless beans. In addition to creating new and better types at our breeding stations, a continuous program of pure-line breeding is carried on, so that Asgrow stocks of standard varieties may be maintained at their best.

**DAYS:** In listing the number of days from planting to marketable condition, we have used the average results secured over a period of years. These figures apply to plantings under normal conditions, and will vary somewhat in different sections of the country, but the number of days indicated will serve to show the relative maturity of the different varieties.

**GREEN PODDED: Dwarf or Bush**

	Length of pod inches	Width of pod inches	Days
* <b>ASGROW STRINGLESS GREEN POD (Tendergreen)</b> . . . . .	5¾	¾	50
All-America Gold Medal; one of the most popular varieties for canning and quick freezing. Hardy, widely adapted and a very dependable cropper. Plant medium large, erect, somewhat thick stemmed, heavily productive. Pods nearly straight, dark green, round, meaty, succulent; entirely stringless, without fiber, of outstanding quality. Seeds oblong, purple mottling on buff with brownish cast: 65 per oz.			
* <b>BURPEE'S STRINGLESS GREEN POD, IMPROVED</b> . . . . .	5½	⅞	50
Since its origination in 1894 by Calvin N. Keeney we have markedly improved this sturdy variety. Plant bushy and productive. Pods nearly round, slightly curved, stringless and fiberless. Seeds coffee-brown: 75 per oz.			

\* *Suitable for quick freezing.*



**BEANS (continued)**

	Length of pod inches	Width of pod inches	Days
* <b>FLIGHT</b> .....	5 $\frac{1}{4}$	$\frac{3}{8}$	63
<p>A new variety of Refugee type developed at our bean-breeding station and introduced for 1949 season. Plants large and spreading, with drooping branches, heavily productive, resistant to common bean mosaic. Pods medium green with slight purple splashing, fully round, brittle, stringless and fiberless. Seeds dark purple or purple blue splashed with pale buff: 100 per oz.</p>			
* <b>FULCROP</b> .....	6	$\frac{3}{8}$	50
<p>Developed by W. J. Zaumeyer of the U. S. Department of Agriculture, Beltsville, Md., from a cross of Full Measure and U. S. No. 5 Refugee; awarded the All-America Selections Gold Medal for 1949, when Fulcrop will be publicly introduced. Plant vigorous and very prolific; less tall than Full Measure and carries its pods lower. Resistant to common bean mosaic. Pods medium green, round, very straight, stringless. This promising new variety most nearly resembles Rival. Seeds oblong; brown mottled with tan: 75 per oz.</p>			
* <b>FULL MEASURE</b> .....	6	$\frac{3}{8}$	53
<p>An excellent variety under favorable conditions but less hardy and more susceptible to disease than others. Plant upright and prolific. Pods round, nearly straight, very fleshy, stringless and tender; medium green. Seeds reddish brown mottled with buff: 65 per oz.</p>			
* <b>GIANT STRINGLESS GREEN POD</b> .....	5 $\frac{3}{4}$	$\frac{1}{2}$	53
<p>Originated by Calvin N. Keeney; introduced in 1898. Plant large, sturdy, prolific. Pods almost round, meaty, strictly stringless and brittle; without fiber or parchment, with marked indentations between the beans; color medium green. Seeds solid yellowish brown: 70 per oz.</p>			



*Asgrow Stringless Green Pod: The leading variety for canning*

\* *Suitable for quick freezing.*

**BEANS (continued)**

	Length of pod inches	Width of pod inches	Days
* IDAHO REFUGEE .....	5	$\frac{3}{8}$	64
Resistant to common bean mosaic. Plant of true Refugee type and strongly prolific. Pods longer than regular Refugee, straight, round, silver-green, with some purple splashing, stringless without fiber; seeds purple-blue splashed with buff: 100 per oz.			
* LOW'S CHAMPION (Maine Cranberry) .....	5	$\frac{5}{8}$	55
Used in the Eastern States. Holds long in green snap stage. Plant medium, erect, moderately productive. Pods light green, straight, flat, stringless, and of good quality. Seeds ox-blood red with white eye: 50 per oz.			
* RANGER .....	5	$\frac{3}{8}$	56
All-America Bronze Medal 1947. A new type, developed by Asgrow, distinguished by its unusual habit of growth, disease-resistance and high yield. Primarily a green pod variety, but provides excellent dry beans. Plant spreading and with half-runners, vigorous and very prolific; resistant to common bean mosaic and downy mildew. Leaves of Refugee form. Pods round, mostly straight, stringless, silvery green, the set largely concentrated in the crown. Seeds white and cylindrical: 110 per oz.			
RED KIDNEY .....	$5\frac{1}{2}$	$\frac{1}{2}$	95
A commercial variety of fine quality for baked beans. Plant large, vigorous, productive. Pods waxy green color, oval flat, stringy, tough and fibrous. Seeds reddish brown: 50 per oz.			
* RIVAL .....	6	$\frac{3}{8}$	50
Introduced by the U. S. Department of Agriculture from a cross between U. S. No. 5 Refugee and Full Measure. Plant more spreading than Full Measure but less so than the Refugee type, vigorous and highly tolerant to common bean mosaic. Pods yellowish green, slightly creasebacked, straight and smooth. Seeds oblong, purple-brown mottled: 85 per oz.			
Tendergreen: See Asgrow Stringless Green Pod.			
* TENDERLONG .....	$6\frac{5}{8}$	$\frac{3}{8}$	48
An Asgrow green pod variety, produced by hybridization and selection, introduced in 1945. Plant erect and vigorous, pods similar to those of Asgrow Stringless Green Pod (Tendergreen) but longer, a shade darker in green color, round, trim, entirely stringless, of excellent quality. Tenderlong produces relatively few ill-shaped pods, even under adverse conditions, and is suited to mechanical picking. Seeds purplish black, mottled buff, dull, not lustrous: 75 per oz.			
We have also developed a mosaic resistant strain of Tenderlong and this is now available for use in areas which have become infested with the virus.			
* U. S. NO. 5 REFUGEE .....	5	$\frac{3}{8}$	63
Developed and introduced in 1935 by the U. S. Dept. of Agriculture. Highly resistant to common bean mosaic. Plant similar to Keeney's Stringless Green Refugee, pods slightly smaller in diameter and longer; silver-green and devoid of purple splashing, round, straight, stringless and fiberless. Seeds of Refugee type but mottled brown: 105 per oz.			

\* Suitable for quick freezing.



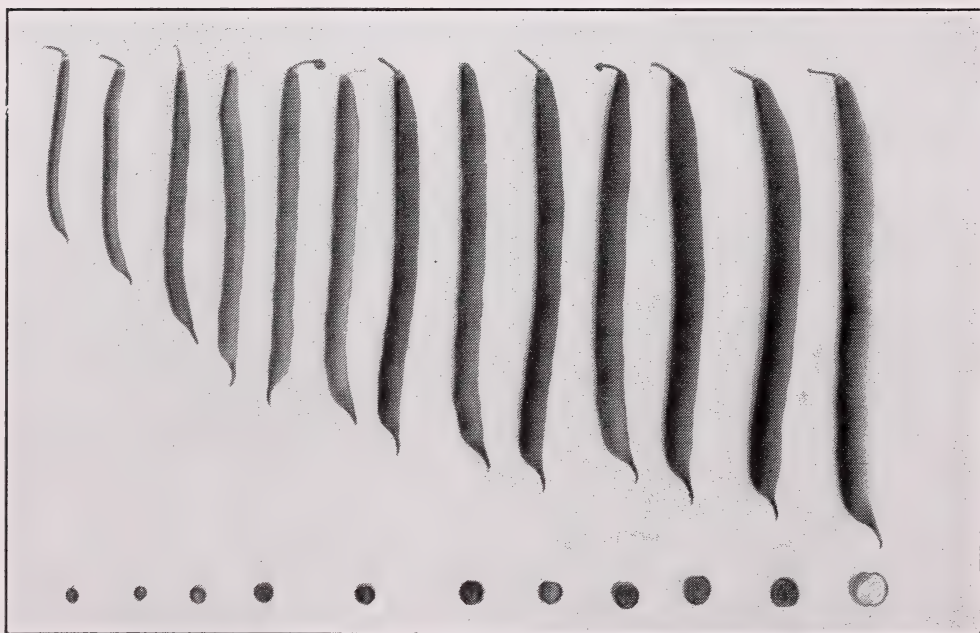
*Ranger: a prolific variety of half-runner type*

	Length of pod inches	Width of pod inches	Days
<b>WHITE KIDNEY</b> .....	5¾	½	100
A commercial variety for baking. Plant large and productive. Seeds long, white, kidney shaped: 50 per oz.			
<b>WHITE NAVY PEA-BEAN</b> .....	3½	¾	110
Extensively grown for baked beans. Plant low but spreading with many runners. Pods short and inedible, contain 6-7 seeds. Dry seeds small, white: 130 per oz.			
<b>WAX PODDED : Dwarf or Bush</b>			
* <b>BRITTLE WAX (Round Pod Kidney Wax)</b> .....	5¾	¾	53
Originated by Calvin N. Keeney, and introduced in 1900. An outstanding sort for canning and freezing. Plant large, erect, medium green, vigorous and moderately productive. Pods handsome in appearance, medium yellow, round, slightly curved, deeply creasebacked, extremely brittle, fleshy, succulent, absolutely stringless and fiberless; the standard of highest quality. Seeds white, kidney shaped, with black eye: 80 per oz.			
* <b>IMPROVED KIDNEY WAX</b> .....	5½	⅝	58
Excellent for canning or quick freezing. Plant large, erect, reasonably productive. Pods oval, light yellow in color, brittle, stringless, fleshy, and of fine flavor. Seeds white, kidney shaped with black eye: 75 per oz.			
* <b>PENCIL POD BLACK WAX</b> .....	6	⅞	55
Originated by Calvin N. Keeney; introduced in 1900. Primarily a home and market garden variety, but used in some sections for canning and has been frozen very successfully. Plant large, stocky, vigorous and strongly productive. Pods round, slightly curved, fleshy, golden yellow, tender, entirely stringless, without fiber, brittle and of finest quality. Seeds oblong, slightly flattened, solid black: 90 per oz.			

\* Suitable for quick freezing.

## POLE BEANS

	Length of pod inches	Width of pod inches	Days
* BLUE LAKE .....	6	$\frac{3}{8}$	64
Developed from a selection of White Creaseback. Widely used in the West for processing. Pods nearly round, medium green, stringless when young, and of very good canning quality. Seeds 120 per oz.			
KENTUCKY WONDER .....	9	$\frac{1}{2}$	65
For a frozen pack of fine color and texture. Long pods in clusters, curved and indented; plump and almost round, meaty, brittle, fiberless with a distinctive and pleasing flavor. Seeds buff brown: 80 per oz.			
* STRINGLESS BLUE LAKE (Strain No. 231) .....	6 $\frac{3}{4}$	$\frac{3}{8}$	64
A valuable variety of this increasingly popular canning and freezing type, developed at our Pacific Coast breeding station. The pods differ from those of regular Blue Lake in being stringless at all stages, fully round, somewhat longer and darker in color. Plant heavy, vigorous and productive; resistant to common bean mosaic and certain strains of rust. Provides an excellent canned or frozen pack from the fleshy, stringless pods, which retain their quality through the larger sieve sizes. Seeds small, white: 100 per oz.			
* STRINGLESS BLUE LAKE B-5 (Strain No. 228) .....	6 $\frac{3}{4}$	$\frac{3}{8}$	58
Same as Strain No. 231 but earlier maturing.			
* U. S. NO. 4 (White Kentucky Wonder) .....	8	$\frac{1}{2}$	65
Developed by the U. S. Department of Agriculture as a high yielding type of White Kentucky Wonder, resistant to certain forms of rust. Plant vigorous, with dark leaves; pods oval, smooth, straight, dark green, stringless when young. Seeds white: 60 per oz.			



*Stringless Blue Lake: Two Asgrow strains are available*

\* Suitable for quick freezing.

**LIMA BEANS : Dwarf or Bush**

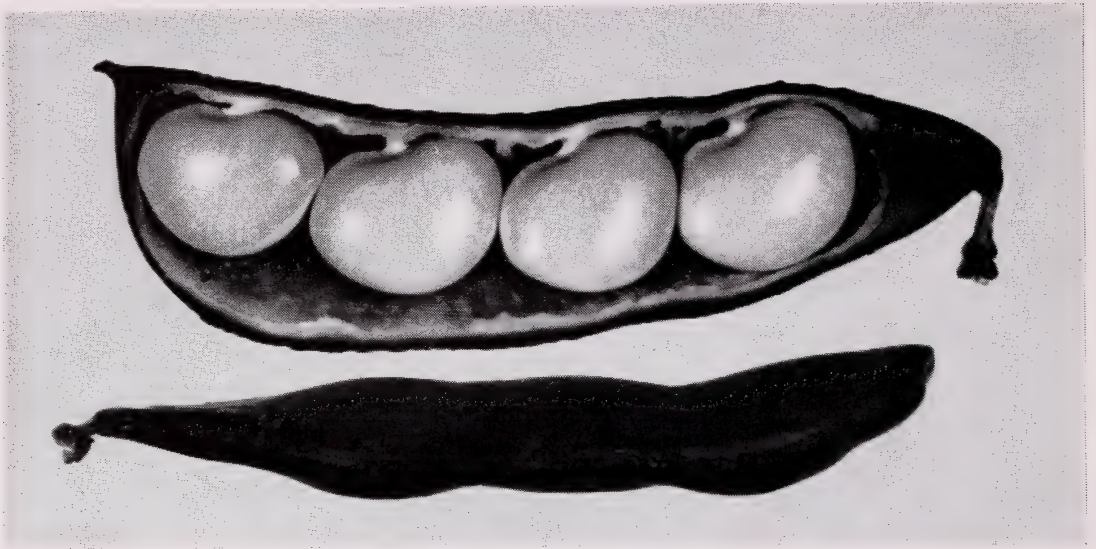
	Length of pod inches	Width of pod inches	Days
* <b>BABY POTATO</b> .....	2¾	¾	72
<p>All-America Silver Medal for 1940. Originally selected by Prof. W. A. Huelsen, University of Illinois; developed and introduced by Associated Seed Growers, Inc. The beans are small but thick, of bright green color when fresh, and similar in flavor to Fordhook. Seeds white: 65 per oz.</p>			
* <b>CLARK'S BUSH</b> .....	2¾	¾	67
<p>Exclusively a product of the Asgrow breeding program and introduced in 1940, this is a distinct variety of Henderson's Bush type, resembling the original in plant and pod but distinguished by its freedom from white beans at all harvesting stages and its heavier yield. Of great value to processors through the reduction of labor on the picking belt. Seeds mainly pale green: 70 per oz.</p>			
* <b>EARLY BABY POTATO</b> .....	2½	¾	66
<p>Developed at our Pacific Coast breeding station to retain the desirable features of Baby Potato but with earlier maturity, making this desirable type suitable for areas of shorter season or as a succession crop. Pods are a little smaller than Baby Potato and slightly lighter. Seeds white: 65 per oz.</p>			



*Fordhook, Asgrow Concentrated: for speedier harvesting*

<b>EARLY MARKET</b> .....	4½	1	70
<p>Developed by the U. S. Department of Agriculture. Large seeded bush type. Plant medium large, with a heavy early yield. Pods curved, uniform in size, shape and fill; usually contain 3, sometimes 4 large, broad green beans of excellent quality. Seeds greenish cream: 25 per oz.</p>			
* <b>FORDHOOK, ASGROW CONCENTRATED</b> .....	3¾	1	71
<p>Bred at our Pacific Coast breeding station. Markedly different from the old Fordhook in that pods are concentrated not only in regard to position but also in time of reaching maturity. The plants are stocky, uniform in development, without tendrils or straggly top growth and very prolific. Seeds white, tinged green: 20 per oz.</p>			

\* Suitable for quick freezing.



*Peerless: A recent U.S.D.A. introduction*

### LIMA BEANS (continued)

	Length of pod inches	Width of pod inches	Days
* FORDHOOK 242 .....	3½	1	75
Developed by the U. S. Department of Agriculture. Plant as tall as regular Fordhook but more spreading. Pods slightly curved, with thinner walls than Fordhook, containing 3-4 light green beans of same excellent quality. Produces heavily under high temperature conditions. Seeds greenish cream and light green: 30 per oz.			
* HENDERSON'S BUSH .....	2¾	¾	65
Sometimes called Baby Lima, and known in the South as a Butter Bean. The Asgrow strain has been bred particularly for increased yielding power and concentration in season. Plant small, dark green, erect, bushy, very early. Pods flat, containing 3-4 flattish, small oval beans. Seeds creamy white: 70 per oz.			
* PEERLESS (U. S. No. 243) .....	3½	1	71
A dwarf Fordhook type introduced by the U. S. Department of Agriculture, developed from a cross of Fordhook x Sieva. Plant as small as Henderson's Bush, with distinctive gray-green foliage; pods similar to Fordhook. Seeds, both immature and dry, somewhat smaller than Fordhook: 40 per oz.			
* TRIUMPH .....	2½	7/8	70
Developed by the U. S. Department of Agriculture from a cross between Fordhook and Sieva; awarded the All-America Silver Medal for 1949. Plants somewhat more compact than Henderson's Bush, with dull dark green leaves; productive, with concentrated basal set. Pods straight, blunt and tightly filled, mostly with three beans of Baby Lima type but plumper and of brighter green color. Seeds white, heavily dimpled and wrinkled: 65 per oz.			

### POLE LIMA BEANS

CHALLENGER (Fordhook Pole) .....	4	1¼	92
A potato lima, with pod and seed of Fordhook type. Plant vigorous, hardy, a good climber and very productive.			

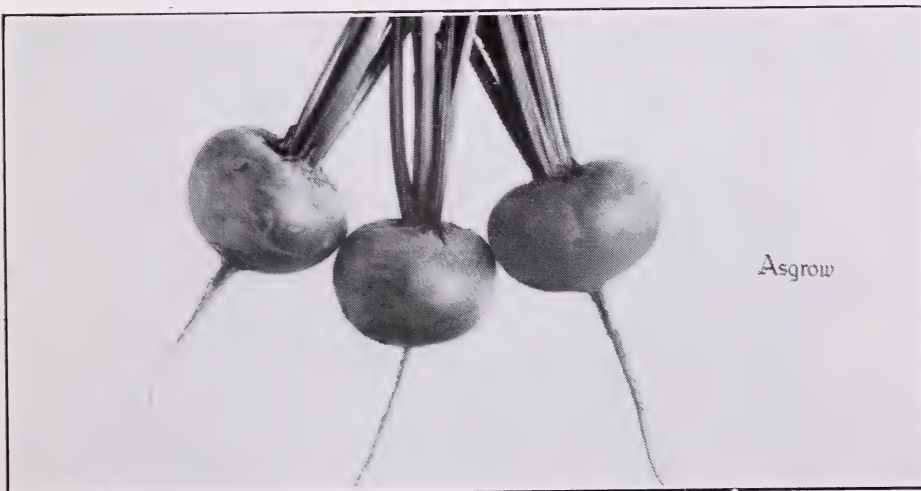
\* Suitable for quick freezing.

**BEET**

In the production of the leading varieties of beet we have bred pedigreed strains for many years. Earliness, evenness of maturity, depth of color and small tap roots are features of these stocks grown from mother beets selected with discriminating care.

The number of days shows the time required under average conditions in the North from planting of seed to the production of roots about 1 3/4" in diameter.

	Days
<b>ASGROW CANNER</b> .....	66
<p>All America Silver Medal 1936. Top strong and erect, medium tall, about 14 inches, green with red ribs. Root smooth, globe-shaped, with small neck; dark maroon-red. Flesh lively deep ox-blood red; exceptionally vivid and attractive when cut; richly colored juice. Recommended for small whole, diced or sliced beets.</p>	
<b>ASGROW WONDER</b> .....	57
<p>All-America Gold Medal 1934. A pedigreed stock, the result of many years of breeding; unsurpassed in earliness, uniformity, and in general dependability. Top large, distinctively green. Root round when young, semi-globular later, deep red, smooth, with small neck and tap root. Flesh deep dark red, tender, and of excellent quality.</p>	
<b>DETROIT DARK RED</b> .....	68
<p>The Asgrow pure-bred strain of this standard variety is of excellent quality. Top medium, dark green tinged with red. Root globular, smooth, uniform, attractive, with small tap root. Color deep ox-blood red. Flesh dark red. Fine quality, sweet and tender.</p>	
<b>OHIO CANNER</b> .....	73
<p>Top medium small, erect. Root flattened globe in shape, smooth, ox-blood red; flesh dark red with slightly lighter zones, sweet and tender.</p>	
<b>PERFECTED DETROIT</b> .....	70
<p>Top tall and erect, green with some red. Root globular, slightly flattened, medium smooth, deep red; flesh dark red and practically free from zoning; of good quality and very suitable for canners.</p>	



*Asgrow Wonder: Esteemed for color and quality*



**BROCCOLI**

- |   |            |
|---|------------|
| * <b>DE CICCO</b> .....   | Days<br>80 |
| <p>A second early type suitable for summer and early fall harvest along Atlantic and Gulf coasts and in Pacific Northwest. Produces a large center head, which may be somewhat loose and of variable color, followed by a good yield of shoots. Useful for freezing and the fresh market.</p>                                       |            |
| * <b>EARLY (Calabrese)</b> .....  | 70         |
| <p>An early variety, widely used for canning and quick freezing, but not adapted to California. The compact bluish-green head is followed by many small shoots.</p>   |            |
| * <b>FREEZERS'</b> .....  | 75         |
| <p>For commercial quick-freezing. Many individual sprouts with small heads are formed, but are not concentrated into a central head, thus providing more suitable freezing material and facilitating picking and packing.</p>   |            |
| * <b>LATE</b> .....   | 150        |
| <p>A very late strain for spring harvesting on the Pacific Coast. Produces large central head but few side shoots.</p>  |            |
| * <b>MEDIUM</b> .....   | 95         |
| <p>The principal variety for freezing in southwestern states. Plant vigorous, producing a large, attractive compact center head, followed by a high yield of side shoots suitable for freezing. Generally grown for harvesting during late fall and winter months, cutting over a relatively long season.</p>                       |            |
| * <b>MIDWAY</b> .....   | 85         |
| <p>As the name implies, this strain matures between the first early group and Medium. Plant and head characteristics similar to De Cicco, but Midway is slower to flower and is therefore better adapted for early fall harvest in the southwestern areas. Plant smaller than Medium with less vigorous side shoot development.</p> |            |

**BRUSSELS SPROUTS**

- |   |    |
|---|----|
| * <b>HALF-DWARF IMPROVED</b> .....  | 70 |
| <p>Plant 22"-26" tall; stems thickly set, with firm cabbage-like balls about 1½" diameter, maturing successively.</p> |    |

\* *Suitable for quick freezing.*



## CABBAGE

Our cabbage seed is produced largely in the Puget Sound section at our western Washington production branch from seed stocks of highest quality. Each year the various varieties are checked at our Eastern breeding station, Milford, Conn., to guard the vital factors of earliness, evenness of maturity and uniformity.

Varieties marked y.r. have been developed, mainly at the University of Wisconsin, for resistance to the cabbage-yellows disease. It is recommended that only these varieties be planted in infested areas.

The column of Days gives relative period to maturity from setting out plants.

	Diameter of head inches	Weight of head pounds	Days
<b>ALL HEAD SELECT, y.r.</b> .....	9	6	78
Resembles standard strains of All Head. Firm head, flat to slightly rounded at top. Uniform and of fine quality for early sauerkraut.			
<b>COPENHAGEN MARKET</b> .....	6½	3½	69
Dependably early and uniform, used largely for early kraut. Outer leaves few and of gray-green color, short stem; head round, solid, and of superior quality. An excellent short season type.			
<b>CORNELL EARLY DANISH BALL HEAD</b> .....	7	5	85
Developed at Cornell University and recently introduced. Plant compact, with thick leaves tending to fold over head. Earlier than standard stocks of Danish Ball Head and slightly smaller. Head somewhat flattened, compact and solid.			
<b>DANISH BALL HEAD (Hollander)</b> .....	7½	6½	103
Most widely used and best type of late cabbage for kraut or storage. Plant fairly large, sturdy, with short stem; outer leaves medium. Head deep round, very hard; interior decidedly compact, leaves composing head smooth and closely arranged. Texture crisp; flavor good; ideal for high quality kraut.			
<b>EARLY GLORY</b> .....	7	4½	71
A recent introduction intended primarily to provide a head of the popular Glory of Enkhuizen type, but earlier. Head very similar, globular and solid, but a little smaller.			



*Copenhagen Market: a favorite early variety*



*Marion Market : A yellows-resistant type*

### CABBAGE (continued)

	Diameter of head inches	Weight of head pounds	Days
<b>GLORY OF ENKHUIZEN</b> .....	8	5	77
An attractive second-early variety, used largely for kraut. Head large, round, solid, with few outer gray-green leaves; of excellent quality.			
<b>IMPROVED GLOBE, y.r.</b> .....	8	6	77
An improved, resistant strain of Glory of Enkhuizen. Large, round, solid head.			
<b>MAMMOTH RED ROCK (Red Danish: Red Dutch)</b> .....	7	7	98
A superior strain of Red Rock developed by careful selection for uniformity and quality. Head round, hard and heavy, deep colored throughout. A good pickler.			
<b>MARION MARKET, y.r.</b> .....	6½	4½	79
A development from Copenhagen Market but with slightly larger, later maturing, round, firm head; leaves more blue-green. Good for kraut or market.			
<b>PENN STATE BALL HEAD</b> .....	7½	5½	105
Head very hard, flattened globe, 6"-7" deep. Desirable for winter storage and for kraut in districts free of the cabbage-yellows disease.			
<b>PREMIUM FLAT DUTCH</b> .....	10	8	100
Deservedly popular for its heavy yield. Head very large, flat, and solid; leaves light gray-green; 6½"-7" deep; of high quality.			
<b>WISCONSIN BALL HEAD, y.r.</b> .....	7	7	100
Head very hard, smaller but more uniform and smoother than Wisconsin Hollander, short stem, blue-green leaves.			
<b>WISCONSIN HOLLANDER, y.r.</b> .....	7½	8	105
Selected from Danish Ball Head at the University of Wisconsin. Head round, becoming slightly flattened, color blue-green. A heavy cropper.			

## CARROT

Planting stocks are developed at our breeding stations from individual progenies which have met the most exacting specifications in performance. Smoothness and shapeliness of roots with depth of exterior and interior color are vital factors in rating parent lines.

In giving the number of days for the development of roots, we have used the average of readings for a period of years. These will vary considerably in different locations.

	Length of root inches	Diameter at shoulder inches	Days
* <b>CHANTENAY</b> .....	6	2	72
A well known and popular all-purpose variety; desirable for canners in packing diced carrots; a good cropper. Root deep orange, smooth, tapered, stump-rooted; flesh deep orange.			
* <b>NANCY</b> .....	6	1½	70
Developed at our Pacific Coast breeding station. Root thicker at the shoulder than Nantes, tapering slightly to a blunt end, coreless, sweet, and of very high quality, with stronger top.			
* <b>NANTES</b> .....	6	1¼	70
Excellent for forcing for canning and for quick freezing whole carrots. Top small. Root bright orange, cylindrical, blunt ended. Flesh reddish orange, crisp, tender, and of delicate flavor.			
* <b>RED CORE CHANTENAY</b> .....	5	2	72
Developed and introduced by C. C. Morse & Co. A desirable Chantenay with good interior color; excellent for dicing. Root somewhat shorter than Improved Chantenay; flesh reddish orange, with indistinct core of nearly the same color as the surrounding flesh.			



*Nancy:*  
a new Asgrow variety  
midway between Nantes  
and Chantenay

\* Suitable for quick freezing.

**CAULIFLOWER**

	Diameter of head inches	Days from Setting of plants
* <b>EARLY SNOWBALL</b> .....	6½	65
The most widely used early variety; good for use in packing mixed pickles. Plant dwarf, with short pale green leaves. Head medium, firm, compact, solid, pure white, and of finest quality; a dependable header. Well adapted to freezing.		
* <b>SNOWDRIFT</b> .....	7½	65
Plant of medium height with upstanding, medium green outer leaves. Head slightly larger than Snowball, firm, solid, very white, well protected by inner folding leaves; curd has fine texture and is free from small protruding leaves.		
* <b>SUPER-SNOWBALL</b> .....	7	55
A highly desirable main crop variety, also used for early planting. Starts heading early and uniformly. Head medium large, compact, very white.		



*Calumet: a new Asgrow hybrid of wide adaptation*

**CELERY****EASY BLANCHING** (Sanford Superb)

An excellent second early green variety. Vigorous and compact in habit of growth, it blanches readily to attractive white, and is a good keeper. Stalks slightly taller than Dwarf Golden Self Blanching; thick, solid; of good flavor.

**UTAH No. 16**

A very desirable green type. Plant tall, stout and compact; blanches readily. Stems thick, solid, medium broad; of nutty flavor and fine quality with relatively few strings.

\* *Suitable for quick freezing.*

## SWEET CORN

Sweet corn has been a leader with us for over eighty years during which time we have originated many well-known varieties. Our production program includes the maintenance of excellent strains of standard sorts and the development of new, superior lines.

Through the use of more recent breeding methods for the improvement of sweet corn varieties, we have developed, through nearly twenty years of controlled pollination, many inbred lines of high merit. The crossing of these produces hybrids of outstanding vigor, uniformity and productivity. Disease resistance is also a vital factor and we can now furnish various hybrids that are highly resistant to Stewart's disease or bacterial wilt.

**DAYS:** The column of days represents average trial row readings for many years at our Eastern breeding station, Milford, Conn. In some sections maturity dates will naturally be different.

Varieties marked (y) have yellow kernels; those marked (w) have white.

## HYBRIDS

*A hybrid is the first generation of a cross between strains of different parentage and involving one or more inbred lines of corn or their combinations.*

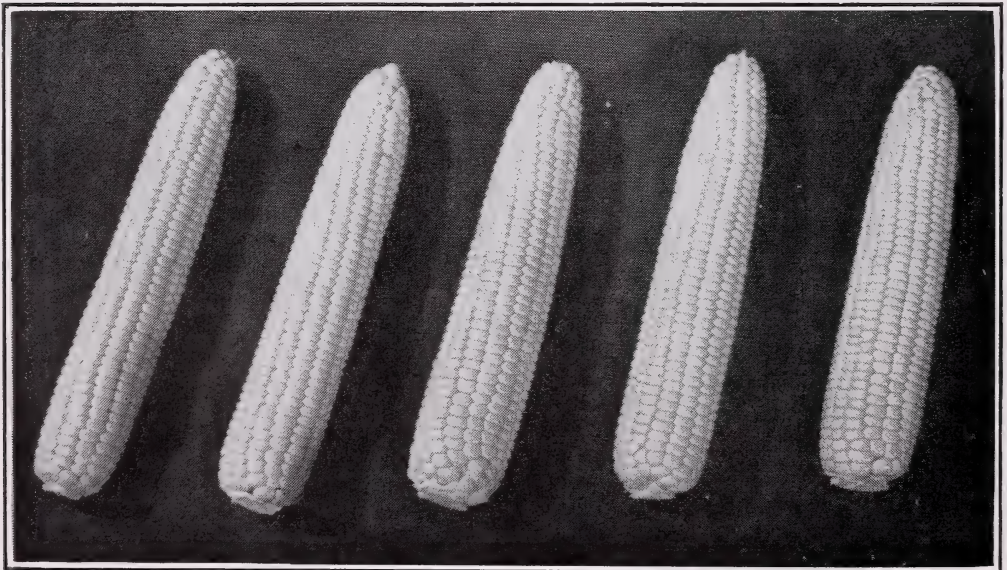
### Ohio State Law.

	Height of stalk feet	Length of ear inches	Days
* CALUMET (No. 57) (y) .....	7	8½	86
<p>A recently introduced Asgrow hybrid which has proven itself widely adapted, from Texas to New England. Plant vigorous and almost suckerless, with dark green leaves and ear carried 6"-8" higher than Golden Cross Bantam. Ear long and cylindrical, well filled to top and with husks of good length, 1½" diameter. Kernels light yellow, medium wide, in 10-16 rows but mainly 12-14. Very uniform in maturing, high yielding, and suitable for mechanical harvesting.</p>			
COGENT 19 x 24 (w) .....	8	8	94
<p>A Country Gentleman hybrid of our breeding and exclusive production. For areas of heavy, rich soil in the Eastern states. Stalk erect, with good foliage. Ear 1⅞" diameter, long, slightly tapered, well filled at tips.</p>			
COUNTRY GENTLEMAN (Ill.) 8 x 6 (w) .....	7	8	99
<p>An extremely drought-resistant variety originated by W. A. Huelsen of the University of Illinois. Ear 1⅞" diameter. Kernels not in rows. Notable for its high percentage of cut-off.</p>			
COUNTRY GENTLEMAN (Ill.) 5 x 10 (w) .....	7½	7½	98
<p>Also originated by Prof. Huelsen. Ear 2" diameter. A prolific variety, giving high yields except in extreme drought.</p>			
COUNTRY GENTLEMAN (Ill.) No. 13 (w) .....	7½	7½	100
<p>Another Huelsen hybrid of the non-rowed ear type. Plant vigorous, with sturdy stalk, relatively few suckers and excellent tassels. Ear 1⅞" diameter; said to "hold" well in the field.</p>			
COUNTRY GENTLEMAN (Ill.) No. 15 (w) .....	7½	7½	97
<p>Also developed by Prof. Huelsen. Plant tall, upright, frequently double-eared. Ear cylindrical, 1⅞" diameter with slight taper, kernels set irregularly, medium in size, with high cut-off.</p>			

\* Suitable for quick freezing.

**CORN (continued)**

	Height of stalk feet	Length of ear inches	Days
* <b>ERIE (y)</b> .....	6½	9	88
<p>An exclusive Asgrow hybrid, having long cylindrical ears slightly tapered, 15/8" diameter, mainly 12-14 rowed. Plant wilt resistant, vigorous, and relatively resistant to drought. In comparison with Golden Cross Bantam, this hybrid produces a plant 6" taller, bearing ears 4" higher on the stalk, maturing 3-4 days later. Widely adapted.</p>			
* <b>GOLDEN CROSS BANTAM (y)</b> .....	6	8	85
<p>Long a popular, widely-adapted hybrid, originally developed by Glenn M. Smith of Purdue University. Plant sturdy and upright, highly resistant to bacterial wilt. Ear 10-14 rowed, cylindrical, 1¾" diameter. Kernels of rich yellow color, medium in depth and width.</p>			
* <b>GOLDEN HYBRID NO. 2439 (y)</b> .....	7	7¾	87
<p>An exclusive Asgrow development from crossing inbred lines Asgrow 24 x P39. Plant tall, vigorous, uniform, comparatively free from suckers; leaves wide, dark green and numerous. Highly resistant to Stewart's disease. Ear 17/8" diameter, cylindrical, 14-16 rowed, with long husks affording considerable resistance to ear worm. Kernels lustrous yellow, medium-narrow and deep, with tender hull, a shade brighter yellow than Golden Cross Bantam; sweet and of excellent quality.</p>			
* <b>HURON (y)</b> .....	7	9	89
<p>This new Asgrow hybrid shows unusual resistance to heat and drought. Plant sturdy, with few or no suckers; foliage dark green, ears carried high. Ear with 12-16 rows, usually 14; 15/8" diameter; deeper and narrower than those of Golden Cross Bantam and a little lighter in color. The yield is higher, in both gross weight and husked corn.</p>			



*Erie: A new Asgrow hybrid with long, slender ears*

\* Suitable for quick freezing.



*Huron: an attractive Asgrow hybrid of high yield*

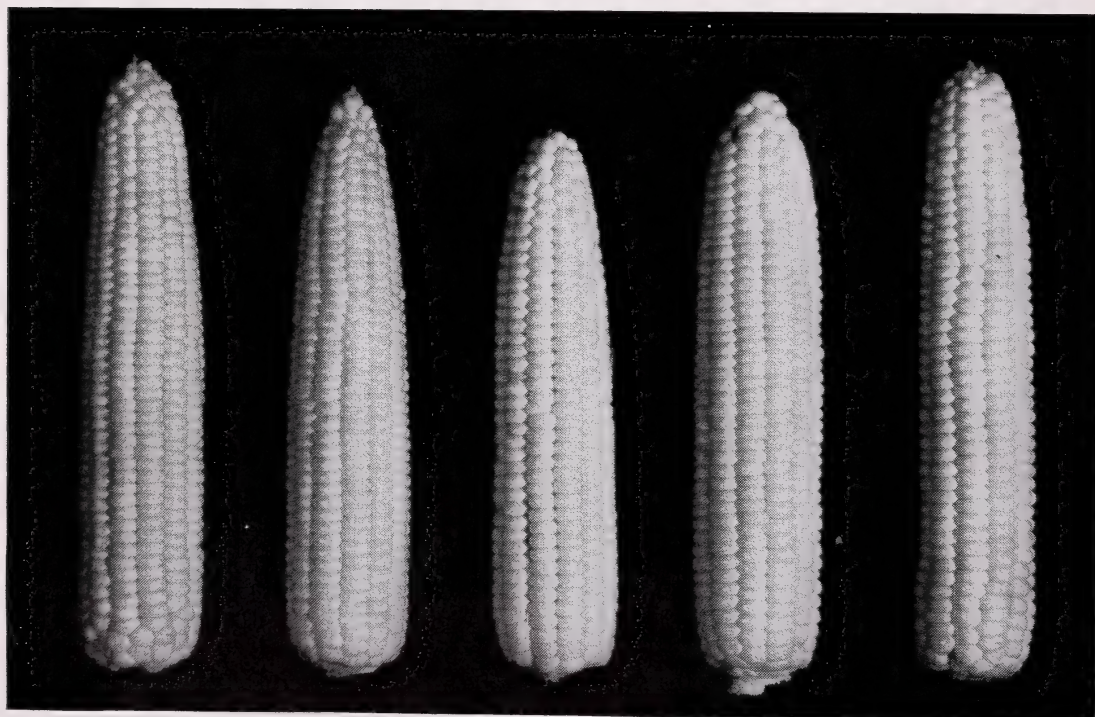
**CORN (continued)**

	Height of stalk feet	Length of ear inches	Days
* IOANA (y) .....	6½	8	87
<p>Originated by E. S. Haber of Iowa State College, commercially developed and entered by us in the All-America Selections trials for 1939 when it was awarded a Bronze Medal. Highly resistant to bacterial wilt. Plant tall and sturdy, with broad and numerous leaves. Ear 7½"-8" long, 1⅞" diameter, 12-14 rowed, cylindrical; well filled with medium-narrow, light yellow kernels, fairly resistant to ear worms.</p>			
* KENNEBEC (y) .....	6	7½	82
<p>Developed at our Eastern breeding station. Ear a little shorter than Golden Cross Bantam but otherwise very similar, including kernel type and husk coverage; 1¾" in diameter, 12-14 rowed, cylindrical.</p>			
NARROW GRAIN (Ill.) 14 x 11 (w) .....	8½	7¾	90
<p>A hybrid variety developed primarily to provide canners with a late white type of heavy yield and high quality in shape and texture of kernels. Plant tall and strong; ears large, 2" diameter, and well filled with 18-22 rows of narrow, deep kernels.</p>			
* NARROW GRAIN 26 x 15 (w) .....	8	7	98
<p>An exclusive product of Asgrow inbred lines. Very uniform and highly desirable for canning and freezing. Plant sturdy, upright with no suckers; leaves wide, dark green. Ear 2" diameter, uniformly tapered, with 18-22 rows. Kernels narrow, deep, tender.</p>			
* OTO (y) .....	7	9	87
<p>An exclusive Asgrow development. A long eared, wilt resistant hybrid with cylindrical 8-12 rowed ears, 1½" diameter, with unusually small cob, of attractive appearance and with excellent husk coverage. Plant very vigorous, relatively resistant to drought. Oto produces a plant 14" taller than Golden Cross Bantam, bearing ears 8" higher on the stalk, maturing about 2 days later.</p>			

\* Suitable for quick freezing.

**CORN (continued)**

	Height of stalk feet	Length of ear inches	Days
* PAWNEE (y) .....	7½	8½	88
One of our newer hybrids from the Asgrow Midwest breeding station, developed to produce high yields of good quality even under conditions of heat and drought. Plant tall, vigorous and thrifty, with dark green leaves. Ear long and cylindrical, with 14-16 rows of sweet, tender kernels, narrower and deeper than those of Golden Cross Bantam, 1¾" diameter. Husk relatively long and tight.			
PEORIA (No. 66) (w) .....	9	8½	94
Recently developed at our Midwest breeding station. A high quality, late hybrid of narrow-grain type. Plant tall and vigorous, almost suckerless, with ear carried high. Ear long and cylindrical, with 12-16 rows of very white, tender kernels, well protected by long husks, 1⅞" diameter. An exceptionally high-yielding hybrid.			
PONTIAC (w) .....	8½	7½	90
An exclusive Asgrow hybrid. High yielding, wilt-resistant and well adapted to Midwestern as well as Eastern conditions. Plant strong, with ears relatively free of flag leaves. Ear 2" diameter, trim and well filled with 16-20 straight rows of very white kernels, narrow and of good depth; holds longer than usual at the prime picking stage. Shows considerable resistance to ear worm.			



*Calumet, Golden Cross Bantam, Kennebec, Erie, Oto*

\* Suitable for quick freezing.



**CORN (continued)**

	Height of stalk feet	Length of ear inches	Days
* <b>SACHEM (y)</b> .....	6	7 $\frac{3}{4}$	82
An exclusive Asgrow hybrid, produced from our own inbred lines as an early companion to Golden Cross Bantam. Plant vigorous and very resistant to bacterial wilt. Ear 1 $\frac{5}{8}$ " diameter, long, trim, and well filled to tips with 10-14 rows of medium-deep, bright yellow kernels.			
<b>SHOEPEG HYBRID 19 x 9 (w)</b> .....	8 $\frac{1}{2}$	7 $\frac{3}{4}$	96
Exclusively an Asgrow production from our own inbred lines. Particularly suitable as a fine-kerneled corn for canners in Eastern areas only. Plant sturdy, upright, with ears 3 $\frac{1}{2}$ -4 ft. from ground. Ear long, cylindrical, 1 $\frac{5}{8}$ " diameter, well filled at tips. Kernels very fine and deep, tender and of excellent quality.			
<b>STOWELL'S EVERGREEN HYBRID 14 x 5 (w)</b> .....	8	8	93
Our development from crossing inbred evergreen lines Asgrow 14 x Asgrow 5. Highly valuable to canners, especially in the East. Plant sturdy with close growing upright ears, 4 ft. from ground; foliage medium green. Ear 2" diameter, very slightly tapered, uniform, with 16-18 rows. Kernels very white, medium-wide, deep; medium cob.			
* <b>TENDERGOLD (Top Cross Sunshine) (y)</b> .....	5 $\frac{1}{2}$	7 $\frac{1}{2}$	83
Plant sturdy with good foliage; highly resistant to Stewart's disease. Ear nearly cylindrical, 1 $\frac{3}{4}$ " diameter, 12-16 rowed, kernels medium in width and depth, golden yellow, tender and of good quality. Desirable for canners and freezers in northerly sections.			
* <b>TOP CROSS MAINE BANTAM (y)</b> .....	6	7 $\frac{1}{2}$	83
Our development; for canners and freezers in short season areas. Plant sturdy with deep green foliage; ear slightly shorter than Golden Cross Bantam, 1 $\frac{3}{4}$ " diameter, very slightly tapered with 12-16 rows; kernels medium-narrow and golden yellow, tender and of excellent flavor. Highly resistant to Stewart's disease.			

**OPEN-POLLINATED**

<b>CLARK'S EARLY EVERGREEN (w)</b> .....	8 $\frac{1}{2}$	7 $\frac{1}{2}$	90
One of the best known of the older canning varieties, originated on our Milford, Connecticut, farms many years ago. Ear 2" diameter, 16-20 rowed. Kernels very deep, ivory white, sweet and tender.			
<b>COUNTRY GENTLEMAN (Shoepeg) (w)</b> .....	7	7	95
A prolific variety of excellent quality. Plant often with two ears, 1 $\frac{7}{8}$ " diameter. Kernels very deep, slender, sweet, with tender hull; set irregularly, without row formation.			
<b>STOWELL'S EVERGREEN (w)</b> .....	8 $\frac{1}{2}$	8	95
The best known late variety of open-pollinated white sweet corn. Plant sturdy and erect; ears 2 $\frac{1}{8}$ " diameter, 16-20 rowed. Kernels clear white, deep, rather broad, sweet and tender.			

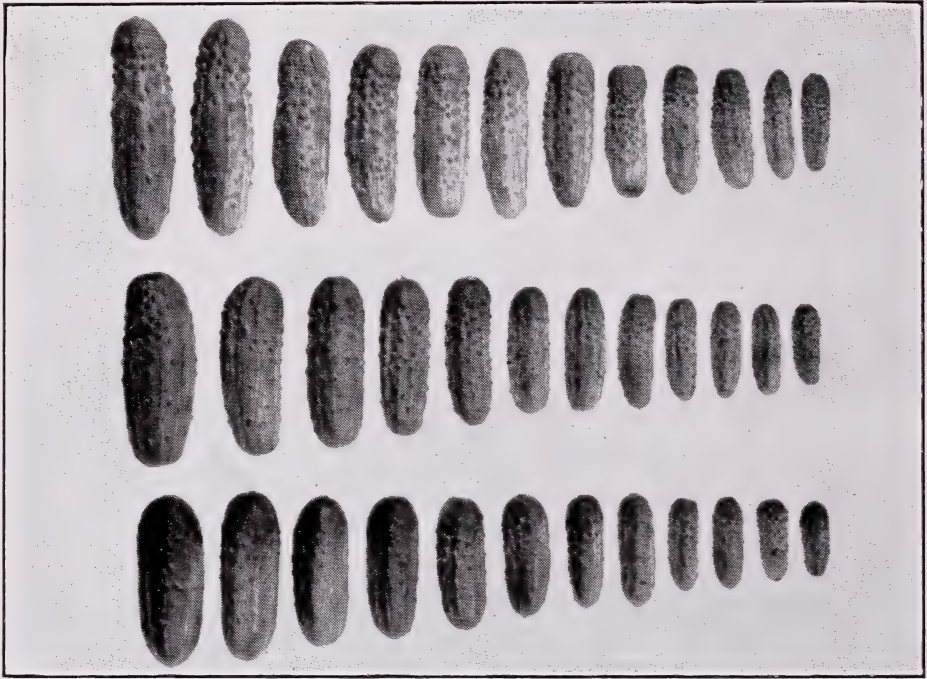
\* Suitable for quick freezing.

**CUCUMBER**

The breeding of new strains and improvement of standard varieties of cucumber is carried on at the Asgrow stations in California and Connecticut, where markedly successful types have been developed.

The column of Days indicates the relative time required from planting of seed to first picking of fruits. The figure should be reduced by several days for small pickles.

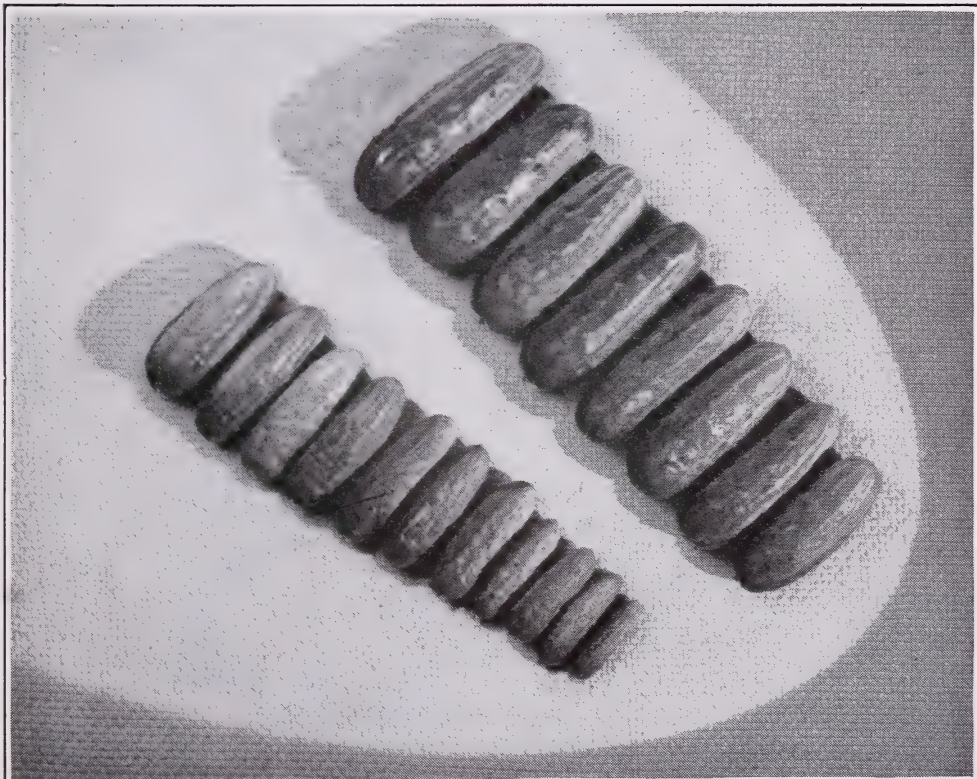
The letters b.s. indicate black spined varieties and w.s. white spined.



*Pickling cucumbers: top, Chicago; center, National Ass'n.; bottom, Snow's*

	Length of fruit inches	Diameter of fruit inches	Days
CHICAGO PICKLING, b.s. ....	6½	2¾	59
A sturdy well-known pickling variety. Fruits medium green, nearly square ended; very prolific; well warted and ribbed at pickle size; uniform and attractive; largest of the pickling sorts.			
GHERKIN, WEST INDIA, b.s. ....	2½	1	60
Not a true cucumber. Used for very small pickles. Fruits pale green, covered with prickly spines; oval and uniform.			
MARKETER, w.s. ....	8	2¼	65
A distinctive Asgrow variety developed at our Eastern breeding station. Awarded the All-America Bronze Medal for 1943 and quickly acclaimed for the trim appearance and uniformity of its many fruits, with their rich dark color carried well down to the blossom end. Vine very vigorous and yields heavily through a long bearing season; fruits slightly tapered; seed area exceptionally small.			
MODEL, w.s. ....	6	2½	56
A new pickling variety developed at our Eastern breeding station. Of similar shape and size to National Association Pickling but white-spined and of darker green exterior color. Trim in appearance and uniform.			

<b>NATIONAL ASSOCIATION PICKLING, b.s.</b> .....	6	2½	56
A highly desirable, very extensively used pickling strain developed at the Michigan Agricultural College in collaboration with the National Pickle Packers' Association. Fruits dark green, symmetrical with thick walls; full ended; slightly shorter than Chicago Pickling.			
<b>PACKER, b.s.</b> .....	6	2½	56
Bred at our Pacific Coast breeding station to provide a pickling cucumber of National Association type but blockier in shape and more uniformly dark green in color. High yielding and gives a very attractive pack.			
<b>PRODUCER, w.s.</b> .....	5½	2¼	54
A distinctive and unusual pickling variety developed at our Eastern breeding station. The vines bear a high percentage of female blossoms, beginning nearer the base of the vine than usual, leading to more compact plants with earlier and higher yield. The fruits are somewhat more stubby than those of National Association and much more plentiful, but somewhat lighter in color.			
<b>SNOW'S PERFECTION PICKLING, b.s.</b> .....	5½	2¾	56
A somewhat smaller sort than Chicago Pickling. Early, prolific, and rightly popular. Fruits deep green, and distinctly square ended, uniform, and attractive.			
<b>STAYS GREEN (Black Diamond), w.s.</b> .....	7	2¾	60
Fruits symmetrical, nearly square ended. Very dark green, holds color and firmness well.			



*Model: A white-spined member of our new pickling series*

CLASSIFICATION OF PEA VARIETIES LISTED IN ASGROW CATALOGS

Berry Color	Stem	Pod Shape	Seed Surface	Cotyledon Color	*1st Bl. Node	Vine Color	*Av. Sieve Size	Variety	Willt Res.	Use					
Light green berry.	Tall Straight	Blunt	Smooth	Green	9	Lt.	3	Alcan (Dbl. Podded)	Res.	Early June canning & commercial					
					10	Lt.	3	Alaska	Res.						
					11	Lt.	3	Yukon	Res.						
				Wrinkled Sweet	Yellow	10	Lt.	3	Ped. Ex. Early	Res.	Commercial				
						18	Lt.	3.5	Creole	Res.					
						10	Lt.	3	No. 4683	Res.					
			Wrinkled Sweet	Green	10	Lt.	3	Surprise	Susc.	Early Sweet canning					
					10	Lt.	3	Surpass	Res.						
					11	Lt.	3.2	Ey. Harvest	Res.						
			Wrinkled Sweet	Yellow	11	Lt.	3.2	Lolo (Double Podded)	Res.	Res.					
					12	Med.	3.2	No. 71	Res.						
					15	Med.	3.2	Gr. Admiral	Res.						
			Primarily canning types.	Short Zigzag	Blunt	Smooth	Yellow	15	Med.	3.2	Yel. Admiral	Res.	canning		
								Yellow	18	Dk.	2.7	Willett's Wonder		Susc. Res.	Home garden
									10	Dk.	3.5	Nott's Excel.		Res.	
11	Dk.	3					Prem. Gem.		Res.						
Wrinkled Sweet	Green	10					Med.	3.2	Early Badger	Res.	Dwf. Early Sweets canning				
		10					Dk.	3.2	Laurel	Res.					
		11				Dk.	4	Loyalty	Res.						
Wrinkled Sweet	Green	13				Dk.	4.25	Pride	Res.	Early Perf. canning					
		14				Dk.	4	Resistant Ey. Perf. Hardy	Res.						
		15				Dk.	4	Perfection	Res.						
Wrinkled Sweet	Yellow	16				Dk.	4	Del. Commando	Res.	Perf. canning					
		16				Dk.	4	Canner King	Res.						
		13				Lt.	4.75	Everbearing	Res.						
Wrinkled Sweet	Yellow	16				Dk.	5	Major	Res.	Large Perf. canning					
		17				Med.	4.75	Wisc. Merit	Res.						
		18	Dk.	4.75	Aurora	Res.									
Wrinkled Sweet	Yellow	15	Med.	4.75	Signal	Res.	Wales canning								
		17	Dk.	5.25	Profusion	Res.									
		17	Med.	5.25	Pr. Wales	Res.									
Wrinkled Sweet	Yellow	14	Lt.	5	Dwf. Telephone	Res.	Home garden								
		17	Med.	5.25	Wales	Res.									
		18	Med.	5.25	Wales	Res.									

Smooth	Yellow	9-10	Dk.	5	Mam. Pod.	Ex. Ey.	Susc.	Mkt. (not for freezing)
Blunt	Green	10-11	Dk.	6	Atlas		Res.	Mkt. & freezing
		9-10	Med.	5.25	Glacier		Res.	Mkt. & freezing
Wrinkled Sweet	Yellow	10	Med.	5.25	Thomas Laxton		Susc.	
		13	Med.	5.5	Teton		Res.	
Smooth	Green	10	Med.	5	Foremost		Susc.	Mkt. (not for freezing)
		11	Med.	4.75	Bountiful		Susc.	
Pointed	Yellow	10	Med.	5	Pilot		Susc.	
		13	Med.	5	Hood		Res.	Mkt. & freezing
Wrinkled Sweet	Green	14	Lt.	5	Miracle		Susc.	
		17	Dk.	5.5	Alderman		Res.	
Pointed	Yellow	9	Lt.	5	World's Record		Susc.	
		9	Lt.	5	Cody		Res.	
Wrinkled Sweet	Yellow	10	Lt.	5	Gradus		Susc.	
		11	Lt.	5	Frostie		Res.	
Blunt	Green	11	Dk.	4.5	Little Marvel		Susc.	Home & mkt.
		14	Med.	5	Shaasta		Res.	
Wrinkled Sweet	Green	14	Med.	5	Onward		Susc.	Home & freezing
		14	Dk.	4	Wyola		Res.	
Pointed	Yellow	14	Dk.	4	Wando		Res.	Freezing & mkt.
		11	Lt.	4.5	Rice's Ea. Dwf.		Susc.	
Smooth	Green	11	Lt.	5	Laxton's Superb		Susc.	Mkt. (not for freezing)
		9	Dk.	4	Eight Weeks		Susc.	
Pointed	Green	11	Dk.	5	Multifold		Res.	Mkt.
		12	Med.	5	Pres. Wilson		Susc.	
Wrinkled Sweet	Yellow	14-15	Dk.	5	No. 40		Res.	Mkt.
		15	Med.	5	Rondo		Susc.	
Pointed	Yellow	15	Dk.	5	Stratagem		Res.	Mkt.
		9	Dk.	5	Laxt. Progress		Susc.	
Wrinkled Sweet	Yellow	9	Dk.	5	Progress No. 9		Res.	Mkt.
		10	Dk.	5	Hundredfold		Susc.	
Pointed	Yellow	17	Dk.	4.5	Lincoln		Res.	Home garden

Dark green berry.  
Primarily adapted to freezing, market or home garden.

Pod and berry size generally larger than canning types.

\* As variations inevitably occur under differing conditions of growth, these figures are to be understood as average.

**DILL**

Plant 2-2½ feet high, with leaves cut into thread-like divisions. Seeds very flat; of strong, bitter flavor. Used for flavoring pickles.

**KALE**

	Height of plant inches	Days
DWARF BLUE SCOTCH .....	14	55
Plant has wide-spreading, finely curled blue-green, plume-like leaves. Used as a vegetable, and for ornament. The Asgrow pedigreed strain is exceptionally uniform and handsome.		
DWARF GREEN SCOTCH .....	14	55
A hardy sort, similar in habit of growth and appearance to Dwarf Blue Scotch, except for color, which is bright, deep dark green. The Asgrow pedigreed strain is large and very attractive.		

**MUSTARD**

	Days
CHINESE BROAD LEAF .....	45
Plant medium large, vigorous; leaves broad, large, slightly crumpled, oblong, medium green, scalloped at edges; seed reddish brown.	
FORDHOOK FANCY (Ostrich Plume) .....	50
A handsome, upright growing, mild variety, slow to bolt seed stalks; leaves bright green, plume-like, and deeply fringed on the edges; seed reddish brown. An exceptionally fancy strain.	
SOUTHERN GIANT CURLED .....	40
The best known and most popular sort for canning "greens." Leaves long and wide, light green, tinged with yellow, heavily crumpled and curled at the edges. Seed small, reddish brown. Used widely in the South.	
Also available is a longer-standing strain.	
TENDERGREEN (Mustard Spinach) .....	35
A quick growing variety particularly suited to the South. Leaves oblong, thick, fairly smooth, dark green with lighter green ribs; slow to seed, resistant to heat and drought; combines flavors of mustard and spinach.	



*Kale:  
large, handsome plants*

**OKRA**

	Height of plant feet	Mature pods inches	Days
<b>CLEMSON SPINELESS</b> .....	4½	6	55
Developed by the South Carolina Experiment Station. All-America Silver Medal. A very uniform spineless strain of the Perkins' type. Plant has less foliage than Perkins'; pods rich green, straight, ridged.			
<b>GREEN VELVET</b> .....	6	6½	58
Developed by the Louisiana Experiment Station; suited to canners and preservers as the pods retain their color when processed.			
<b>PERKINS' SPINELESS</b> .....	3	7	50
A recent smooth-podded variety bred by the Campbell Soup Co. replacing the old prickly-podded Perkins' Mammoth, to which it is much superior. Plants dwarf, early and fruitful; pods bright green, slender, ribbed and spineless.			
<b>VELVET (Lady Finger)</b> .....	6	6½	58
An improved strain of White Velvet. Plant tall, early and prolific. Pods creamy white, slender, spineless, ribless.			
<b>WHITE VELVET</b> .....	6	6½	58
Plant early, prolific; pods creamy white, sometimes pale greenish white, meaty, tender; spineless, smooth, round and pointed.			



*Clemson Spineless:  
uniform and prolific*

**PICKLING ONIONS**

	Days
<b>WHITE BARLETTA (White Pearl)</b> .....	90
An early sort, used for pickling. Bulb small, more or less spherical when young, flattening later, pure white, of mild, sweet flavor.	
<b>WHITE PORTUGAL (White Queen)</b> .....	100
The most widely used all-purpose white onion. Bulb medium sized, thick-flat clear white, hard, fine grained, and of pleasing flavor. A dependable cropper.	

**PEAS**

One of the most important Asgrow plant breeding stations is located at Hamilton, Montana, devoted exclusively to the maintenance or improvement of our stocks of standard varieties and to the development of new types embodying disease resistance, yield, quality or other specifications to meet the needs of the packing industry.

**DAYS:** since the time from planting to first picking varies widely in different seasons and in different sections, the column of days gives average results under normal rainfall conditions in the North. These figures will be of assistance in comparing the relative earliness or lateness of the various varieties when planted in any locality.

**Smooth-Seeded**

	Height of plant inches	Length of pod inches	Days
<b>ALASKA</b> .....	28	2 <sup>5</sup> / <sub>8</sub>	57
<p>The Asgrow strain—the first progeny line, pedigreed stock of this variety ever developed—is noted for its pod size and productivity. Fully resistant to Fusarium wilt. Used very extensively for first early canning. Vine slender, light green, very uniform in maturing. Pods single, blunt, light green, round, straight, contain 6-8 peas; sieve sizes 1 to 5, largely 3 and 4. Seeds small, round, smooth, bluish green: 140 per oz.</p>			
<b>YUKON</b> .....	35	2 <sup>3</sup> / <sub>4</sub>	59
<p>A more vigorous vined Alaska reaching canning maturity about two days later than regular Asgrow Alaska. Pods are similar but slightly larger; resistant to Fusarium wilt and a reliable cropper under adverse conditions. Of particular value to packers of Alaska type peas, helping to meet AIS standards and offering larger yields of high quality, small sieve sizes when harvested early. Sieve sizes 1 to 6, largely 3 to 5. Seeds 130 per oz.</p>			



*Yukon : hardy, vigorous and prolific*



PEAS (continued)

Wrinkled-Seeded

	Height of plant inches	Length of pod inches	Days
* ALDERMAN (Dark-Podded Telephone) .....	60	4½	74
A handsome large podded variety, excellent for freezing. Vine dark green, coarse, resistant to Fusarium wilt. Pods single, large, plump, straight, dark green, pointed; contain 8-10 peas of highest quality. Frozen peas oblong, dark green; sieve sizes 4 to 8. Smaller sizes should not be frozen. Seeds large, light green: 90 per oz.			
CANNER KING .....	34	3½	67
A popular Asgrow development. Vine similar to Perfection but with more open habit of growth; color medium green. Resistant to Fusarium wilt. Pods slightly curved, single and double, medium green, blunt, contain 7-9 peas; sieve sizes 2 to 7, largely 4 to 6. Seeds green, of medium size: 100 per oz.			



*Canner King: a leading Asgrow introduction*

CLIMAX .....	36	2¾	66
A prolific sort for second early canning. Vine of Admiral type, medium green and slender. Resistant to Fusarium wilt. Pods single and double, light, blunt; contain 6-7 peas. Sieve sizes 1 to 5. Seeds small, green: 140 per oz.			
* CODY .....	32	3¾	57
A first early freezing variety recently developed by Asgrow. Of Gradus type but earlier and resistant to Fusarium wilt. Vine light green, medium heavy. Pods single, dark green, pointed, broad, plump, containing 7-9 large oblong deep green tender peas. Sieve sizes 3 to 7. Seeds large: 90 per oz.			

\* Suitable for quick freezing.

**PEAS (continued)**

	Height of plant inches	Length of pod inches	Days
<b>EARLY HARVEST</b> .....	32	2¾	60
An early sweet wrinkled canning type, bred by Asgrow, showing more vigor than either Surprise or Wisconsin Early Sweet. Vine thrifty, medium green, resistant to Fusarium wilt. Pods single, light green, plump, blunt; contain 6-8 peas having tender skins and excellent flavor. Canned peas round, light green, sieve sizes 1 to 5, average 3.2. Also very attractive run-of-pod. Seeds small, green: 140 per oz.			
* <b>FROSTIE</b> .....	38	3¾	63
An improved Gradus type for canning and freezing. Vine medium green, stocky. Pods single, broad, plump, pointed, medium green; contain 8-10 large, sweet, delicious peas. Frozen peas oblong, deep green; sieve 3 to 7. Seeds large, cream and green: 100 per oz.			
* <b>GLACIER</b> .....	32	3¼	61
Developed at our pea-breeding station to meet the need for a variety somewhat earlier than Thomas Laxton but of the same general type and fully resistant to Fusarium wilt. The vines are dark green and medium heavy. Pods single, dark green, blunt ended, plump and well filled with 7-8 deep green, semi-round peas of excellent quality for canning or freezing; sieve sizes 3 to 7. Seeds large, cream and green: 100 per oz.			



*Glacier: Similar to Thomas Laxton but wilt-resistant*

* <b>HUNDREDFOLD (Laxtonian)</b> .....	18	4¼	63
A large podded dwarf variety for canning and freezing. Vine dark green. Pods single, broad, dark green, slightly curved, pointed; contain 7-8 large, oblong, deep green peas; sieve sizes 3 to 7, largely 5 to 6. Seeds large, flattish, yellow and green: 95 per oz.			
<b>LAUREL</b> .....	24	3	62
A new early Perfection type developed by Asgrow for canners desiring a dwarf pea maturing one week ahead of regular Perfection. Podding very concentrated and prolific. Vine dark green and determinate. Pods double, light green, and straight. Sieve sizes 1 to 6, largely 4 to 5. Seeds small, green: 135 per oz.			

\* *Suitable for quick freezing.*

**PEAS (continued)**

	Height of plant inches	Length of pod inches	Days
* LAXTON'S PROGRESS .....	16	4½	62
<p>The largest podded and most attractive of the Laxtonian family. Vine medium dark green. Pods single, 7/8" wide, dark green, somewhat curved, pointed, handsome; contain 7-9 large, oblong, deep green peas of good quality; sieve sizes 3 to 7. Seeds large, cream with green: 85 per oz.</p>			
LOLO .....	38	3	63
<p>A new, very hardy and vigorous double-podded early sweet type developed by Asgrow for high temperature conditions. Reaches canning stage about two days after Surprise and Surpass. Vine very vigorous, medium green. Fully resistant to Fusarium wilt. Pods light green, plump, blunt, contain 6-8 peas of good quality and flavor. Sieve sizes 1 to 5, largely 3 to 4. Seeds small, wrinkled, green: 130 per oz.</p>			
LOYALTY .....	28	3¼	63
<p>A dwarf early sweet type possessing an ability to crop under adverse weather conditions. In developing this variety at our pea-breeding station, particular attention was given to incorporating the factors for resistance to heat, moisture, and aphids. Fully resistant to Fusarium wilt. Vine dark green with concentrated pod setting; pods double, straight, plump, well filled with 7 to 9 medium green round peas; sieve sizes largely 3, 4 and 5. Seeds 120 per oz.</p>			



*Lolo : a new Asgrow variety*

* MIRACLE .....	48	4	70
<p>An English variety, of Alderman type but with shorter, lighter-colored vine and somewhat smaller pod; not resistant to wilt. Vines medium green, pods large, single, slightly curved, pointed; with very dark green berry of sieve sizes 3 to 7, averaging 5. Well adapted to freezing. Seeds 100 per oz.</p>			

\* Suitable for quick freezing.

**PEAS (continued)**

	Height of plant inches	Length of pod inches	Days
* MULTIFOLD .....	24	4 $\frac{3}{8}$	66
Of large Hundredfold type, developed at our pea-breeding station for quick freezing and general use. Vine strong and prolific. Resistant to Fusarium wilt. Pods single and double, broad, dark green, pointed and slightly curved; contain 8 large, dark green peas of excellent quality, sieve sizes 3 to 7. Seeds large, green: 100 per oz.			
* NUMBER 40 .....	28	5	74
Vine dark green, stocky and branching; resistant to Fusarium wilt. Pods single and double, round, dark green, plump, pointed, curved at tip; contain 8-10 large, succulent peas; sieve sizes 3 to 7, and a few larger. Medium dark green when frozen. Seeds large, green: 90 per oz.			
NUMBER 71 .....	36	2 $\frac{3}{4}$	66
A reliable and prolific canning variety. Vine slender, medium-dark green; resistant to Fusarium wilt. Pods blunt, single and double, with 6-7 peas of sieve sizes 2 to 5. Seeds small, wrinkled and green: 140 per oz.			
NUMBER 4683 .....	28	2 $\frac{3}{4}$	60
An early canning variety adapted to Wisconsin conditions. Vine slender, light green. Pods single, straight, blunt, with 6-8 peas similar to Alaska but a sweet, semi-wrinkled pea. Sieve sizes 1 to 5, largely 3 to 4. Seeds small, wrinkled, green: 195 per oz.			
PERFECTION .....	30	3 $\frac{1}{4}$	70
An important main crop canning variety, resistant to Fusarium wilt; concentrated in pod development and very productive. The Asgrow strain is known particularly for its uniform, large, attractive pods. Vine medium green, stocky. Pods double, medium green, blunt, slightly curved; contain 7-9 peas. Canned peas semi-round, medium green; sieve sizes 1 to 6, largely 3 to 5. Seeds green, of medium size: 130 per oz.			
PREMIUM GEM (Resistant Gem) .....	22	2 $\frac{3}{4}$	64
Resistant to Fusarium wilt. Vine dark green, medium, productive. Pods single and double, light green, round, straight, blunt; contain 6-7 peas of good quality. Canned peas oblong, medium green; sieve sizes 1 to 5, largely 3 to 4. Seeds green, medium sized: 120 per oz.			
PRIDE .....	30	3 $\frac{1}{2}$	65
Developed at our pea-breeding station and introduced in 1936. Vine dark green, sturdy, uniform, resistant to Fusarium wilt and very resistant to aphids. Pods mainly double, straight, plump, dark green, well filled with 7-9 medium deep green, semi-round peas; sieve sizes 1 to 6, largely 3 to 5. Highly concentrated in season and produces crops of quality peas under adverse conditions. Seeds medium, green: 120 per oz.			
PROFUSION (Prince of Wales) .....	42	3 $\frac{1}{4}$	76
A medium late canning variety; resistant to Fusarium wilt. Vine medium green, with stout stem. Pods single and paired, light green, plump, straight, blunt; contain 5-6 large, oblong peas of good quality; sieve sizes 3 to 7, and a few larger. Seeds large, cream and green: 90 per oz.			
RESISTANT EARLY PERFECTION .....	36	3 $\frac{1}{4}$	66
A new Asgrow development of Early Perfection type, resistant to Fusarium wilt. Vine dark green and vigorous. Pods double, light green, contain 7-8 peas of high quality. Sieve sizes 1 to 6, largely 4 to 5. Seeds small, green: 140 per oz.			

\* Suitable for quick freezing.

**PEAS (continued)**

	Height of plant inches	Length of pod inches	Days
* SHASTA .....	28	3¾	67
<p>Developed at our pea-breeding station to meet the need for a late-maturing Thomas Laxton type. Vine medium green and sturdy; resistant to Fusarium wilt. Pods dark green, a little larger than Thomas Laxton and of similar shape, borne mainly in pairs. Peas deep green, of excellent quality and highly suitable for freezing; sieve sizes 3 to 7, a few larger. Seeds large, green: 100 per oz.</p>			
SIGNAL .....	34	3¾	74
<p>A late dwarf Profusion type but with green rather than yellow cotyledons, developed at our pea-breeding station to meet the need of canners for a late large sized run-of-pod variety of determinate growth habit. Fully resistant to Fusarium wilt. Vine dark green, pods paired, light green, plump, containing 6-8 very large peas of olive shape and excellent quality. Sieve sizes mostly 5, 6 and 7. Seeds 85 per oz.</p>			
SURPASS (Resistant Surprise) .....	28	2⅝	57
<p>Developed at our pea-breeding station to provide a variety with the desirable canning qualities of Surprise, plus resistance to Fusarium wilt. The new variety is somewhat more prolific, but vine and pod type are, in general, identical with Surprise. Sieve sizes 1 to 5, average 3. Seeds 150 per oz.</p>			



*Perfection: Canner King: Pride: Early Harvest: Surpass*

SURPRISE .....	28	2⅝	58
<p>A popular early canning sort of first quality. Vine medium green, slender. Pods single, light green, plump, blunt; contain 6-8 round, light green peas; sieve sizes 1 to 5, average 3, also excellent when ungraded. Seeds small, green. This variety long podded pure-line strain is outstanding. Seeds: 150 per oz.</p>			
* TETON .....	34	3¾	65
<p>An attractive Asgrow variety fully resistant to Fusarium wilt. Excellent for canning and freezing. Vine dark green, medium heavy. Pods single, large, straight, blunt, dark green, concentrated in season; well filled with 7-8 large, semi-round, olive-green peas of very fine quality; sieve sizes 3 to 7, average 6. Seeds large, cream and green: 105 per oz.</p>			

\* Suitable for quick freezing.

**PEAS (continued)**

	Height of plant inches	Length of pod inches	Days
* <b>THOMAS LAXTON, DARK PODDED</b> .....	36	3½	62
<p>The Asgrow improved dark podded strain is very attractive in both plant and pod. Excellent for canning and freezing. Vine deep green and medium heavy. Pods single, rich deep green, plump, broad, blunt; contain 7-8 large, tender peas of splendid quality, semi-round, olive-green; sieve sizes 3 to 7, average 5.5. Seeds of medium size, cream and green: 100 per oz.</p>			
<b>WISCONSIN EARLY SWEET</b> .....	28	2½	59
<p>Vine medium green, slender. Pods single, light green, plump, blunt; contain 6-7 round, light green peas; sieve sizes 1 to 5. Seeds medium small, green: 150 per oz.</p>			
* <b>WYOLA</b> .....	30	3	68
<p>Developed at our pea-breeding station primarily to provide the freezing industry with an early variety of small-sized dark-colored peas. Vine of medium length, wilt-resistant and very prolific. Pods dark, highly double, blunt, well filled with 7-9 small, dark peas of sieve sizes 1 to 5. Seeds small, green: 125 per oz.</p>			



*Wyola : small dark green peas for quick freezing*

**For Southern Canners**

<b>BROWN CROWDER</b> .....	28	7	80
<p>Vine dark green, thick-stemmed and branching. Pods round, plump, blunt, medium green, filled with brownish peas crowded tightly together. Seeds buff-brown with small darker brown eye. Seeds 155 per oz.</p>			
<b>BUNCH PURPLE HULL</b> .....	20	8	75
<p>A good canning variety. Pods purple; seeds smooth and almost round, slightly smaller than vining Purple Hull, cream-white with purple eye: 190 per oz.</p>			
<b>CALHOUN CROWDER</b> .....	26	7	70
<p>A new introduction, bred by the Louisiana Experiment Station for resistance to wilt and nematodes. Vine upright and prolific; pods rather tough and stringy, making for easier shelling. Seeds 100 per oz.</p>			

\* *Suitable for quick freezing.*

## PEPPER

Development of new varieties and the improvement of standard sorts are carried on at our Eastern breeding station, Milford, Conn., and our Pacific Coast station, Milpitas, Calif. Our pedigreed stocks are noted for earliness in maturity and thickness of flesh.

The seasonal relationship among varieties is shown by average reading of maturity dates, the column of Days indicating relative time from setting-out of plants to picking.

	Length inches	Diameter at stem inches	Days
<b>ANAHEIM (CALIFORNIA) CHILI</b> .....	7	1½	80
A medium hot variety, grown mainly in the Southwest. Plant large, somewhat spreading, very prolific. Fruits pendent, long, tapered, smooth, deep green turning to deep scarlet.			
<b>CALIFORNIA WONDER</b> .....	4½	3¾	75
Plant vigorous, upright, prolific. Fruits largely 4-lobed, upright and pendent; short oblong with little or no taper; very attractive, smooth, uniform and deep green, changing to bright crimson; flesh very thick, sweet and mild.			
An Asgrow strain adapted to Western requirements is also available.			
<b>EARLY CALWONDER</b> .....	4	3½	69
An Asgrow strain of California Wonder maturing a week to ten days earlier. Plant stocky and sturdy, vigorous, prolific. Fruits 3- and 4-lobed, smooth, uniform, deep green changing to bright crimson at maturity; thick, sweet and mild. Particularly desirable in areas of shorter season.			
<b>FLORAL GEM</b> .....	2¼	1	75
A very pungent pickling variety, used extensively in Southern California. Plant large, upstanding, very prolific. Fruit tapering, waxy yellow with reddish cheek when half mature or at pickling stage, changing to full red at maturity.			
<b>HUNGARIAN YELLOW WAX</b> .....	6	1¼	65
A first early, hot variety. Plant dwarf and prolific. Fruits pendent, medium slender, tapering, smooth and very pungent. Color waxy yellow changing to bright crimson at maturity.			
<b>LONG RED CAYENNE</b> .....	5¼	¾	70
A favorite hot variety, used for canning, in pickles, and for drying. Plant large and productive. Fruits tapering, pendent, frequently twisted; very pungent; deep green changing to brilliant red.			
<b>PEPPERENCINO (Small Sweet Italian Pickling)</b> .....	4	1	75
A very mild variety used in California for pickling when about half grown. Plant medium, upright, prolific. Fruits of medium size, thin walled, non-pungent, tapered to a 3-lobed tip.			
<b>PIMENTO, PERFECTION</b> .....	3½	2½	80
A valuable canning variety. Plant large, erect, prolific. Fruits heart-shaped, pendent, very smooth; color dark green, changing to bright crimson, flesh exceptionally thick, sweet and mild.			

**PUMPKIN**

	Length inches	Diameter inches	Days
<b>CONNECTICUT FIELD</b> .....	12	14	118
Extensively grown for canning; often planted in corn fields. Fruits large, partly globe shaped; 15-20 lb. Surface hard, smooth, somewhat ribbed; deep orange in color; flesh thick, orange-yellow, coarse and sweet.			
<b>KENTUCKY FIELD</b> .....	10	13	120
A heavy yielding variety widely used for canning, particularly through the South. Fruits large, slightly ribbed, not fixed in shape, some being flat, others globular and elongated; 10-15 lb.; color dull orange; flesh deep yellow, coarse, and of good flavor.			
<b>SMALL SUGAR (New England Pie)</b> .....	8	10	108
Of small handy size, but tonnage equals others. Fruits round, flattened at ends, 6-8 lb.; skin hard, smooth, somewhat ribbed, deep orange; flesh thick, sweet and dry, of bright orange color and high quality.			



*Bloomsdale Savoy, Long Standing: popular for spring sowing*

**SPINACH**

This necessary vegetable has been frozen more in the West than in the East, but in both sections satisfactory results have been achieved, particularly with the thick leaved sorts, though all varieties may be successfully packed if care is taken in processing to avoid loss of firm texture.

The time from planting to cutting of plants varies considerably with the season of the year in which sowings are made. The column of Days applies to spring plantings in the northern States.

Varieties marked p.s. are prickly seeded; all others are smooth seeded.

	Days
* <b>BLOOMSDALE SAVOY, LONG STANDING</b> .....	42
Only a few days later than other Bloomsdales, it holds 12-14 days longer before throwing seed stalks. Plant large, very uniform, erect and sturdy, with very attractive, highly crumpled dark green leaves.	

\* *Suitable for quick freezing.*



**SPINACH (continued)**

	Days
* <b>GIANT NOBEL</b> (Giant Thick Leaved: Matador) .....	45
The best of the smooth thick-leaved sorts. Plant large, vigorous, and spreading; slow to form seed stalks, and an extremely heavy yielder. Leaves very large, thick, smooth, pointed, with rounded tip; medium green, tender.	
* <b>HOLLANDIA</b> (Giant Prickly Winter: Dark Green), p.s. ....	39
More attractive and productive than the old Prickly Winter, it is highly desirable for canners. The leaves are large, broad, arrow-shaped, and dark green. Used extensively in California.	
* <b>KING OF DENMARK</b> .....	46
An exceptionally long standing sort, highly desirable for canning, and for market gardens. The large, spreading plant carries broad, rounded, very dark green leaves, which are somewhat crumpled. Excellent for spring growth as seed stalks are slow in forming.	
* <b>OLD DOMINION</b> .....	40
A popular variety in Texas, resistant to mosaic and of long-standing character. Plant similar to the Savoy but leaves somewhat more pointed.	
* <b>VIKING</b> (Northland : Heavy Pack) .....	45
A darker leaved selection from Nobel. Excellent for canning. Plant large spreading, vigorous, long standing and heavily productive. Leaves very large, thick, medium dark green.	
* <b>VIRGINIA SAVOY</b> (Blight Resistant) .....	39
Bred at the Virginia Experiment Station for mosaic resistance. Upstanding, vigorous plants; seeding rather early. Leaves somewhat smoother than other strains of Savoy.	
* <b>VIROFLAY</b> .....	40
An old, mid-season, large variety, with long, broad, pointed, thick, smooth leaves of deep green color. Giant Nobel is now generally preferred in this class.	



*Giant Nobel: Productive, thick leaved and well flavored*

\* *Suitable for quick freezing.*

## SQUASH

Of all the vegetables, squashes exhibit the greatest range in plant and fruit characters and hybridize most readily under average field conditions. Consequently they are given special care and attention at our breeding stations in California and Connecticut. Pedigreed lines are established by controlled pollination. Increase blocks are grown in fields well isolated from any kindred variety.

The column of Days indicates the relative time from planting of seed to marketable fruits. The measurements apply to fully grown fruits.

	Length inches	Diameter inches	Days
<b>BOSTON MARROW</b> .....	12	9	97
Fruits of Hubbard size and shape, weigh 6-8 lbs. The deep orange skin is somewhat rough, and quite hard; flesh is yellow, thick, firm, fine grained, moist. Vine of trailing type.			
<b>GOLDEN DELICIOUS MARROW</b> .....	11	8	100
Fruits top-shaped, weigh 7 lbs. Color bright reddish orange, with deep green tip at blossom end. Flesh thick, medium grained, golden orange, sweet and dry.			
<b>GOLDEN HUBBARD</b> .....	11	8	100
Fruits somewhat pointed at each end, weigh 8-10 lbs., moderately warted, orange-red, with faint cream colored stripes toward blossom end; flesh deep orange, dry, and of fine quality.			



*An Asgrow tomato crop ready to process for seed*

## TOMATO

New varieties are being developed at our breeding stations and older varieties improved through individual cultures produced under expert handling. Disease resistance, attractiveness of color, thickness of walls, and heavy cropping qualities have been attained to a high degree. Seed is also available of leading shipping and canning varieties, certified as to purity and freedom from disease by various State Departments of Agriculture.

**DAYS:** The number of days indicated represents the time required from setting of plants to produce marketable fruits.



*Certified Associated Baltimore: A deep-fruited strain*

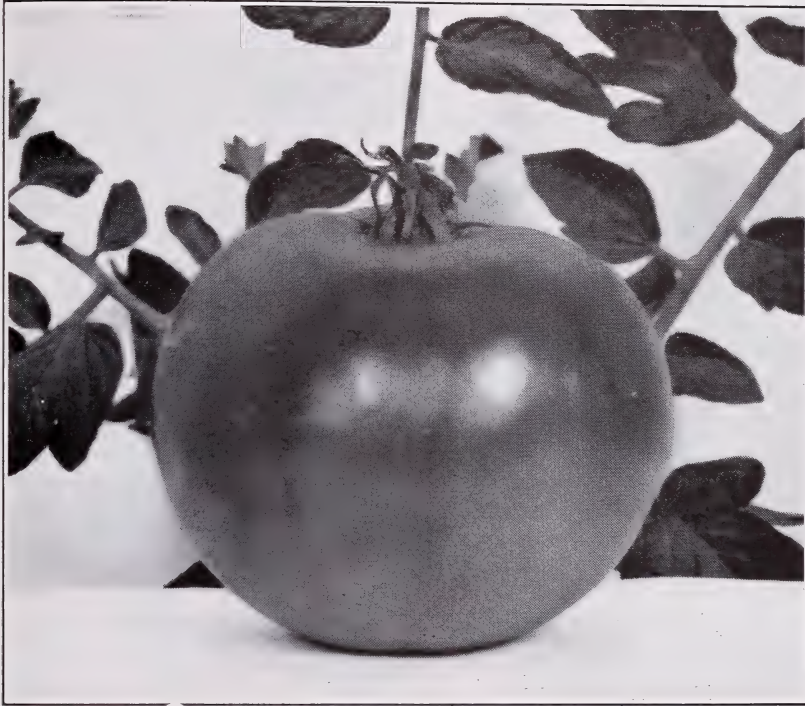
- |   | Days |
|---|------|
| <b>CARDINAL</b> .....   | 78   |
| An Asgrow introduction bred to provide an Improved Stone type. Strong dark green, very prolific vines which retain their foliage through a long bearing season. Large, handsome, semi-globe fruits of rich scarlet with unusually deep interior color; smooth, thick-walled and solid, of excellent color and flavor. |      |
| <b>CERTIFIED ASSOCIATED BALTIMORE</b> .....   | 79   |
| This earlier, deeper-fruited Asgrow strain is particularly desirable for canners of the East and Midwest states; certified free from seed-borne diseases. Vine large with medium heavy foliage. Fruits large, thick-flat, smooth, deep red, solid and attractive; good for juice as well as regular pack.             |      |
| <b>CLARK'S SPECIAL EARLY (Bonny Best: John Baer)</b> .....  | 72   |
| Vine of medium growth, open, prolific. Fruits medium large, globe-shaped, bright scarlet, smooth, solid, with thick walls.  |      |
| <b>EARLY BALTIMORE</b> .....  | 73   |
| Developed by Prof. W. A. Huelsen, University of Illinois. Fruits oblate, smooth. Particularly adapted to midwestern conditions.   |      |
| <b>EARLY SANTA CLARA</b> .....  | 83   |
| An early strain of this standard California canning tomato. Very uniform; fruits large, flat, deep red and meaty; of sweet, non-acid flavor. Highly suitable for the solid pack.  |      |

**TOMATO (continued)**

	Days
<b>GARDEN STATE</b> .....	84
Developed by D. R. Porter of Campbell Soup Co. from a series of crosses involving Pritchard, Marvel and Pink Topper; introduced in 1944. A vigorous main crop variety with fruits similar to Rutgers but slightly larger, heavier and earlier.	
<b>GEM</b> .....	69
Developed at the New York Experiment Station, Geneva, N.Y. Can be set closer than normal, on good soil. Vine determinate; small and compact, with sparse foliage. Fruits slightly flattened, medium in size and color.	
<b>GOLDEN QUEEN</b> .....	84
The leading large yellow variety. Vine of medium size. Fruits flattened globe, medium large, deep golden yellow; smooth, rather solid, of mild flavor.	
<b>GREATER BALTIMORE</b> .....	82
Vine large, vigorous, somewhat open. Fruits flat, medium large, deep scarlet, fairly solid and firm.	
<b>JEFFERSON</b> .....	82
Our recent introduction. Developed at our Midwest breeding station. Vine medium to heavy, vigorous and prolific, resistant to Fusarium wilt. Fruits globe-shaped, a little smaller than Rutgers in size, dark red in color both inside and outside, thick-walled with small core and relatively free from cracking. Highly wilt resistant.	



*Jefferson: a new Asgrow variety, highly resistant to wilt*



*Rutgers: widely adapted and extensively grown*

LONGRED .....	Days 75
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Developed at the New York Experiment Station, Geneva, N.Y. Vine medium in size, with many branches; leaves small but abundant. Fruits globular to deep globular, of medium size, solid and well colored.

MARGLOBE .....	77
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Vine vigorous, with heavy foliage, partially resistant to Fusarium wilt and nail-head rust; moderately productive. Fruits medium large, nearly globular, deep red, smooth, solid, with thick walls and cross-sections.

Certified Marglobe, in sealed Asgrow containers, is our strain with State Department of Agriculture certification of trueness to type and freedom from seed-borne diseases.

MOSCOW (Wasatch Beauty) .....	70
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Vine compact and prolific, with branches terminating in clusters of fruits, which are round, firm and smooth.

NORTON .....	88
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A wilt-resistant variety, similar to Stone, introduced by the U. S. Dept. of Agriculture. Vine medium heavy and productive. Fruits large, flattened globe-shaped, deep cardinal-red; solid.

PAN AMERICA .....	73
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Developed by the U. S. Department of Agriculture at Beltsville, Md., from a cross of a small-fruited Peruvian variety and Marglobe. Highly resistant to Fusarium wilt. Fruits globular, of medium large size, bright red color and thick walls, heavily set. Vine semi-open, with moderately heavy foliage.

**TOMATO (continued)**

	Days
<b>PEARSON "C"</b> .....	85
Developed at the College of Agriculture, California. A variety in the main-crop class, primarily for canning. Vigorous vines with ample foliage to protect the fruits, which are medium large, semi-globe and of good red color. Its tough skin is of value to the canner.	
<b>PRITCHARD</b> .....	76
Introduced by the U. S. Dept. of Agriculture. Vine self-topping, tolerant to Fusarium wilt and nail-head rust. Fruits nearly globular, with thick walls; color light scarlet, not so intense as could be desired.	
<b>RED JACKET</b> .....	72
Developed at the New York Experiment Station, Geneva, N.Y. Vine medium in size, with potato-leaf type of foliage. Fruits large, slightly flattened, well colored.	
<b>RUTGERS</b> .....	86
An excellent canning variety of wide adaptation, combining Marglobe's resistance to disease and J.T.D.'s habit of ripening from the interior outwards. Vine large with thick stems and vigorous foliage. Fruits globular; bright red, smooth with thick walls and small seed cells.	
Certified Rutgers, in sealed Asgrow containers, is our strain with State Department of Agriculture certification of trueness to type and freedom from seed-borne diseases.	
<b>SAN MARZANO (Improved King Humbert)</b> .....	80
A small fruited variety used for canning solid pack, paste, and puree. Vine medium, rather open, very prolific. Fruits largely rectangular, 3½" long x 1½", two-celled, borne in clusters, deep red, with little juice and of very mild flavor. The Asgrow strain is notably thick, uniform and solid.	



*Pearson C: A California variety. Foliage removed to show heavy set*



*Southland: a disease-resistant introduction by U.S.D.A.*

## **TOMATO (continued)**

	Days
<b>SCARLET DAWN</b> .....	70
Developed at the Asgrow Eastern breeding station from a cross of Clark's Early and Marglobe; earlier in season than either parent. All-America Gold Medal. Vine of medium growth, fairly open, very prolific. Fruits medium large with thick wall structure, globular, smooth, free from flat sides; bright scarlet, ripening well to the stem, exceptionally attractive.	
<b>SOUTHLAND</b> .....	85
Developed at the U. S. Department of Agriculture Vegetable Breeding Laboratory, Charleston, S. C., in cooperation with 13 southern stations and introduced in 1948. Vine vigorous and leafy, with high resistance to disease: nearly immune to Fusarium wilt, highly resistant to Alternaria collar rot, considerably resistant to late blight, early blight and blossom end rot. Fruits somewhat oblate, or slightly flattened globe, not so deep as Rutgers, well colored and free from puff.	
<b>STOKESDALE</b> .....	73
Introduced by the Francis C. Stokes Co.; an attractive second early variety of wide adaptability and heavy yielding ability. Fruits smooth and practically spherical, medium large in size and of good red color.	
<b>STONE</b> .....	86
Vine large, dense, very productive. Fruits large, flattened but deep, smooth, attractive scarlet-red of fine flavor. The Asgrow strain ripens evenly and is uniform.	
<b>WISCONSIN NO. 55</b> .....	75
Introduced by the College of Agriculture, University of Wisconsin. Vine vigorous, with some resistance to early blight and blossom end rot, open but fairly leafy. Fruits medium large, slightly flattened, of good scarlet color.	

## **SMALL FRUITED**

Red or Yellow Cherry, Pear and Plum — a variety of shapes in either color, very prolific and disease-resistant.

**TURNIP**

The number of days represents the time required from sowing of seed to roots of marketable or storage size, at our Eastern breeding station, Milford, Connecticut.



*Purple Top White Globe:  
the popular turnip*

	Diameter inches	Days
<b>PURPLE TOP WHITE GLOBE</b> .....	4	55
<p>The most popular variety for general use. Tops dark green, large, erect, cut leaved. Roots large, globe-shaped, very smooth, upper part purple-red, white below; flesh white, sweet, crisp and tender. The Asgrow strain is very uniform and attractive.</p>		
<b>SEVEN TOP</b> .....		35
<p>A very hardy sort used in the South for canning "greens." The young shoots are very tender; roots tough and unsuitable for food.</p>		
<b>SHOGAIN</b> .....		30
<p>A popular fast growing variety, for early greens and small roots. Tops 18"-20" tall, erect, bright green, strap leaved. Roots semi-globular, white throughout, mild and tender.</p>		
<b>WHITE EGG</b> .....	2 $\frac{1}{4}$	60
<p>Tops medium sized, upright, cut leaved. Roots white, egg-shaped, 3"-3<math>\frac{1}{2}</math>" long, white throughout; smooth, fine grained, and of fine quality.</p>		

**RUTABAGA : SWEDE TURNIP**

<b>AMERICAN PURPLE TOP</b> .....	5	90
<p>Also called Long Island Improved. A dependable variety; keeps well in storage. Roots large, globular, inclined toward top shape with relatively small neck; yellow with purple top; flesh light yellow, firm, of good texture and quality.</p>		

**WATERMELON**

	Weight pounds	Days
<b>CITRON, GREEN SEEDED (Colorado Preserving)</b> .....	12	95
<p>Used only for preserving; extremely productive. Fruits round with alternate dark and light green striping. Flesh white and solid; seeds quite plump, smooth, glossy green.</p>		
<b>CITRON, RED SEEDED</b> .....	10	95
<p>Practically identical with Green Seeded Citron, except slightly smaller and with red seeds. Used for preserving.</p>		



## The Asgrow Germination and Analytical Laboratory

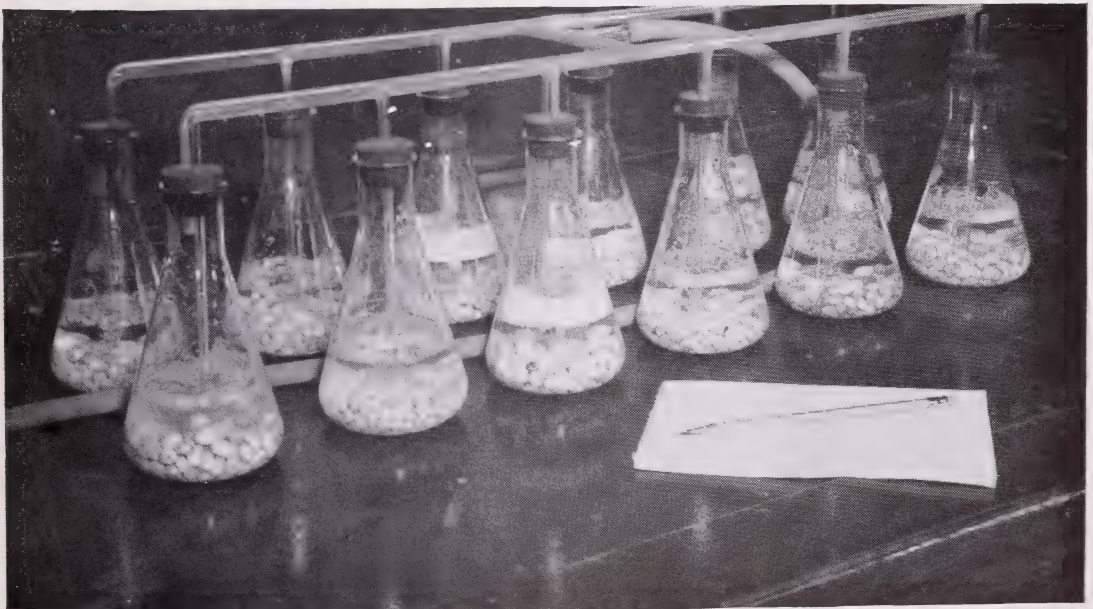


*Apparatus for cold-testing seed corn under conditions approximately those of early spring in the field.*

“Good” seed shall be viable, clean, disease-free, and true to type.

The most essential character of any lot of Asgrow seed is its ability to germinate and produce normal plants under average conditions.

One of the primary functions of a seed laboratory is that of determining seed viability so that such seed may be evaluated for use by our customers. Viability implies ability to germinate and grow when proper environmental conditions are provided. A seed may be considered to have germinated when it develops those structures which are commonly recognized in different varieties, species, or families of plants as essential to normal seedlings. Broken, malformed or other seedlings which are known to be incapable of producing plants under suitable laboratory conditions are to be considered as not having germinated.



*A chemical test for viability*

## The Asgrow Germination and Analytical Laboratory (continued)

A second function of a seed laboratory is to determine the purity of seed stocks. This is accomplished by computing freedom from dirt, chaff, other crop seeds, and weed seeds. If weed seeds or other crop seeds are present, it is necessary to identify them accurately and to report if any noxious weeds are present.

A third function of a seed laboratory is to determine if seed may be contaminated either internally or externally with bacterial or fungous organisms that are pathogenic to the seed or the plants that are expected to develop from the seed.

The Asgrow germination and analytical laboratory at New Haven, Connecticut, is properly equipped and staffed to perform these functions efficiently and on a large scale. As we handle a large number of samples "room" germinators are used. These rooms are sealed with 2" to 3" of cork; the temperature and humidity are accurately controlled by thermostats and humidostats; and they are lighted by fluorescent lamps. One room is capable of holding 3,000 samples in duplicate when tested by the blotter method, or 670 samples in sand test.

The best equipment available is used in connection with the purity work — Binoculars, Iowa air blast separators, sieves, Boerner seed sampler, Chain-o-matic Balance, and special Neon lighted counting plates.

Complete and accurate records are made and kept of all operations in the laboratory. These records are on permanent file, for ready reference. Purity and germination samples are retained in a systematic file, usually for at least one year after the receipt of the sample in the laboratory.



*A corner of the main Asgrow laboratory*

# Associated Seed Growers, Inc.

Main Office: New Haven 2, Connecticut

## Consolidating

THE EVERETT B. CLARK SEED CO.,	Est. 1857
N. B. KEENEY & SON, INC.,	1860
JOHN H. ALLAN SEED CO.,	1856
JEROME B. RICE SEED CO.,	1832

## Growing stations and warehouses at

Ashton, Idaho	Milford, Connecticut
Bozeman, Montana	Mt. Vernon, Washington
Dolores, Colorado	Powell, Wyoming
Elgin, Oregon	Rexburg, Idaho
Fairfield, Montana	Rigby, Idaho
Fairfield, Washington	Ronan, Montana
Filer, Idaho	Rupert, Idaho
Gervais, Oregon	St. Anthony, Idaho
Gonzales, California	Salinas, California
Greeley, Colorado	Salmon, Idaho
Hamilton, Montana	Sheboygan, Wisconsin
Kalispell, Montana	Brooks, Alberta, Canada

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## Breeding stations at

Franklin, Indiana	Milpitas, California
Hamilton, Montana	Palmetto, Florida
Orange, Connecticut	Robstown, Texas

Twin Falls, Idaho

Central Germination and Analytical Laboratory: New Haven 2, Conn.

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## Sales branches and distributing warehouses at

Atlanta 2, Georgia	Memphis 2, Tennessee
Cambridge, New York	Milford, Connecticut
Indianapolis 4, Indiana	Oakland 4, California
Los Angeles 21, California	Salinas, California

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## Distributors for Texas

### ASSOCIATED SEEDS, INC.

San Antonio 6    Robstown    Weslaco    Tyler    Lubbock

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International Division : ASGROW EXPORT CORPORATION

New Haven 2, Connecticut

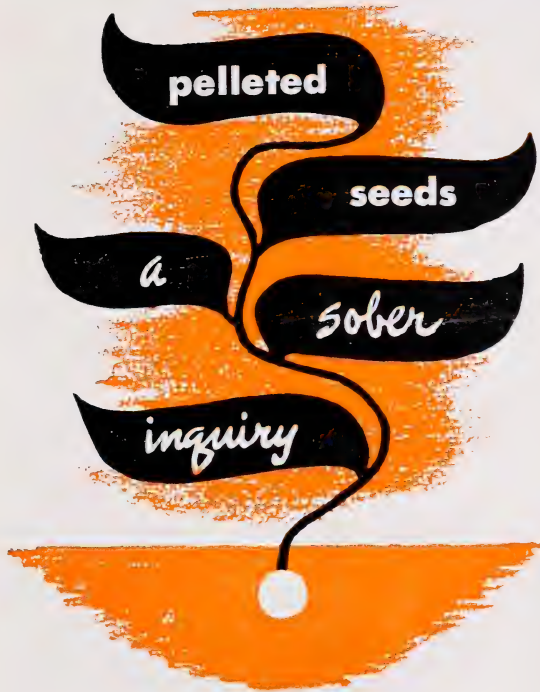
Cable Address : Asgrow

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ASSOCIATED SEED GROWERS, INC., gives no warranty, express or implied, as to the productiveness of any seeds or bulbs it sells, and will not be responsible for the crop. Its liability, in all instances, is limited to the purchase price of the seeds or bulbs.

## PLANTING TABLE

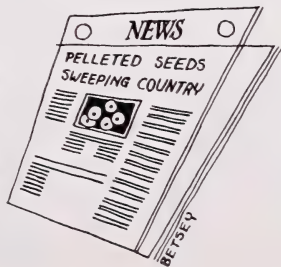
Species	Seed for 100 ft., ounces	Seed for an acre, pounds	Approx. no. seeds per oz.	Rows apart, feet	Plants apart in rows, inches	Planting depth, inches
Asparagus	60 plants	.....	1,500	2½	20	6
Beans, bush	8	50-70	60-90	2	3-4	1½
Beans, pole	6	30-40	70-120	3-4	9, or hills	1½
Lima beans, bush	8	35-60	20-70	2-2½	3-4	1½
Lima beans, pole	6	25-40	20-65	3-4	9, or hills	1½
Soy beans	8	40-50	50-70	2½	3-4	1½
Beet	½	8-10	1,500	1½-2	3-4	½
Chard, Swiss	¼	3-4	1,200	2	15	½
Broccoli	⅛	¼	9,000	2	18	¼
Brussels Sprouts	⅛	¼	8,000	2	18	¼
Cabbage, early	⅛	¼	8,500	2	12	¼
Cabbage, late	⅛	¼	8,500	2	18	¼
Chinese cabbage	⅛	¼	7,000	2	12	¼
Carrot	⅛	2-3	25,000	1½	3	¼
Cauliflower	⅛	¼	10,000	2	18	¼
Celeriac	⅓	¼	50,000	2	4	⅛
Celery	⅓	¼	50,000	2-3	5	⅛
Chicory	⅛	¼	17,000	2	10	¼
Collard	⅛	¼	8,000	2½	24	¼
Corn, early	2	6-8	100-200	2½	9	1
Corn, main crop	2	6-8	100-200	3	12	1
Cucumber	½	1½-2	1,000	4	24	¾
Egg Plant	⅓	¼-½	6,000	3	30	½
Endive	⅛	2-3	15,000	1½	9	¼
Kale	⅛	¼	7,500	2½	24	¼
Kohl Rabi	⅛	¼	8,000	2	8	¼
Leek	¼	2	10,000	1½	6	½
Lettuce, leaf	⅛	3	20,000	2	12	¼
Lettuce, head	⅛	3	20,000	2	12	¼
Muskmelon	⅛	2-3	1,200	5	48	1
Mustard	¼	1	15,000	2	9	¼
Okra	¼	5-6	500	3	15	1
Onion	¼	3-4	8,000	1½	3-4	½
Parsley	¼	4	15,000	1½	4	¼
Parsnip	¼	4-5	6,000	1½	4	½
Peas	8-12	4-5 bu.	90-150	2-3	1-2	1
Pepper	⅓	¼	4,000	2½	24	¼
Pumpkin	⅛	1-2	100	8	60	1
Radish	½	4-6	3,500	1	1-2	½
Rhubarb	20 plants	.....	.....	4	48	.....
Spinach	¼	10-15	2,500	1½	6	¾
Squash, bush	½	3-4	300	4	36	1
Squash, vining	¼	2-3	100	6	60	1
Tomato	⅓	¼	20,000	3-4	36	¼
Turnip	⅛	2-3	9,000	1½	4-6	¼
Rutabaga	⅓	1-2	8,000	2	6	¼
Watermelon	⅓	3-4	200-300	8	96	¾



## FACTS ON FILCOAT PELLETED SEEDS

Pelleted seed has news value. People talk about it, write about it. And you hear conflicting reports: "It's sensational". "It's worthless". "It's still in the experimental stage". "It's all right for professional growers but no good for amateurs". "Amateurs will fall for it but professionals will leave it alone".

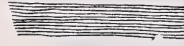
Since we have made several thousand tests of pelleted (coated) seeds, we are in a position to clear up some of the confusion. Hence this leaflet.



## WHAT PELLETED SEED IS



There are two types of pelleted seed. One kind has several different seeds in each pellet. This is the kind that is used to sow range grasses from airplanes. You could not use this kind of pellet in your garden.



The kind of pellet used for vegetables and flowers is the single-seed pellet. This is the kind of pellet we will discuss here and we will use its more specific name: "Coated Seed".



A coated seed consists of one seed built up to a larger size and more or less round shape with a soluble outer coating. The seed itself is in the middle, like a peachstone in a peach. The average size of the pellet is a little larger than a BB shot.

## TWO KINDS OF COATED SEED



Coated seeds are of two kinds. One kind has the coating made up mainly of inert ash with a water-soluble cellulose binder. The other kind contains no cellulose but the coating is built up on the seed by rolling it in slightly moistened clay dust. The coated seed is then dried, and the clay hardens. Either method of coating may incorporate fungicides, hormones, or fertilizer. Our own experiments lead us to prefer the clay-dust type of coating, which is called FILCOAT.

## WHAT COATED SEEDS WON'T DO FOR YOU

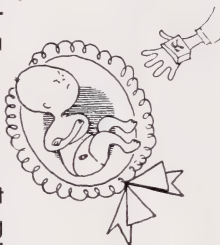
*For one thing, coated seeds won't fertilize your garden.*

We are terribly sorry, but a plant gets about as much nourishment out of the coated seed as you get out of a stick of gum. It is possible to put a minute amount of plant food in the coating. But the maximum safe amount of plant food in the seed coating is about one-tenth of one per cent of what the plant will need. This quantity is so small that you may as well forget it. The idea of fertilizing the seedling with the coating dies hard. Some people will tell you that a little concentrated fertilizer right at the start of a plant's growth does more good than a lot later on. Unfortunately, it's the other way around. When a seed is just sprouting, any concentration of fertilizer is dangerous — like feeding K rations to a new-born baby.



### *How About Growth Hormones in the Coating?*

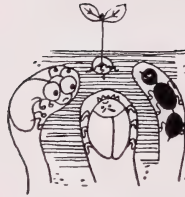
You may as well forget about these, too. It is possible to rig up a demonstration that will show the growth hormones making a big difference. All you have to do is to use sterile sand. But for all practical purposes you can forget about the growth hormones because it is at least a thousand to one



that your garden soil already has them in sufficient quantity.

### *Protection Against Plant Diseases?*

Coating the seeds does give quite good protection against one plant disease — "pre-emergence damping off". This is a common disease that kills the baby plant even before it reaches the surface of the soil. The coating protects it in two ways. One of them is simply in providing an area of disease-free clay next to the seed. The other way is to provide a better base than the bare seed for fungicides like Spergon or Arasan. Certain fungicides will injure the seedling if applied in sufficient strength to give real protection against disease in badly infested soils. The coating keeps the bacteria from touching the seed itself, at the same time gives the fungicide a larger area of contact with the soil.



We should say that in most soils the advantage of more effective protection against disease is fairly important, though not sufficiently important all by itself to make coating worthwhile.

### **ARE COATED SEEDS EASIER TO SOW?**

They certainly are. Have you ever sown carrots, onions, lettuce, or other small-seeded kinds? If you have, you don't



need to be told that it is practically impossible to sow them just thick enough. Most people sow them too thick and give themselves a lot of thinning to do. And of all garden jobs, crawling along on your knees, thinning out a row of closely crowded plants is the most thoroughly boring. Then sometimes you sow too thin and get a scattered uneven stand of plants. Some of us manage to sow some parts of a row of small seeds too thin and other parts of the row too thick.



Large-seeded kinds like peas and beans are a different story. They are big enough to handle one by one and you can drop them so as to eliminate thinning completely in most cases.

Coating small seeds makes them as easy to sow as peas or beans—practically eliminates thinning. By paying a nickel extra for coated seeds you may be saving half an hour to an hour of thinning. If you enjoy thinning as little as we do, that's worthwhile.



*Does This Mean That it is Only Worthwhile to coat Small-Seeded Kinds?*

We think it does. When Nature makes seeds large, as she does with beans, peas, corn, cucumber, melon, squash, and some other kinds, then we feel that it is better to leave those seeds alone.

There are also some small-seeded varieties that seem to grow better if the seeds are not coated. So we don't offer you coated seeds of these.



But there are plenty of kinds of vegetables and flowers that are naturals for coating. Commercial growers are finding that coated seeds reduce their thinning as much as 90%. Home gardeners who don't enjoy thinning can safely follow their example.

### **DO COATED SEEDS INVOLVE ANY SPECIAL PROBLEMS?**

Yes. By far the most serious of these is delay in sprouting when the soil is dry. This difficulty can be avoided by:



1. Planting fairly early in the spring, when moisture is plentiful.



2. Following directions on packets carefully.

### **ARE PLANTING DIRECTIONS ON COATED SEEDS DIFFERENT?**

Yes. Very different. Here are the essential points.



You prepare the ground just as you would for uncoated seeds by spading one foot deep, breaking up the clods, and raking smooth.

Now press a furrow into the soil with the edge of a board. Pressing this furrow, rather than scratching it, makes the soil compact enough to bring up the moisture. Directions on the packet will tell you how deep to make the furrow.



Then gently press the coated seeds into the bottom of the furrow. The top of each pellet should be about level with the bottom of the furrow.



Next, water the bottom of the furrow lightly.



Finally — after watering — fill in the furrow with soil so that the ground is level. Leave this soil loose. *Don't* press it down.



Follow these directions to the letter and you will find that FILCOAT pelleted seeds are really "THE EASY WAY TO A BETTER GARDEN".



**Associated Seed Growers, Inc.**



Asgrow